THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XL. SATURDAY, APRIL 29, 1882. No. 17.

ORIGINAL LECTURES.

ON MEMBRANOUS LARYNGITIS: CROUP.

A Clinical Lecture.

BY WILLIAM T. PLANT, M.D.,

PROFESSOR OF THE DISEASES OF CHILDREN IN THE SYRACUSE UNIVERSITY, NEW YORK.

GENTLEMEN: The subject of this morning's lecture is a disease that has for the physician a melancholy interest. Choosing for its victims, as it is apt to do, children who are in robust health, its coming is unheralded and unexpected; it runs a short and terrific course, and very often it has a fatal ending. It occurs, too, at the most interesting and lovable period of child-life, namely, between the second and fifth years. Occasionally it attacks those who are somewhat older, but it is infrequent in nurslings and almost unknown to adults.

The term *croup*, though it has reference to a single symptom only, answers very well the purpose of a name. It is a Scotch word which means to speak with a harsh, gruff voice.

Though a disease of marked individuality, with an existence coeval, doubtless, with that of the human race, it appears never to have been clearly described until 1765, when Dr. Francis Home, of Edinburgh, published "An Inquiry into the Nature, Cause, and Cure of Croup."

It has often happened that the ailments of royalty and other great personages have been a benefit to medical science by stimulating research. This is notably true of croup. In 1806 or 1807 the little son of the King of Holland died of it, whereupon his uncle, Napoleon Bonaparte offered a prize for the best dissertation upon it. The offer was responded to by eighty-three essayists, of which two were given prizes and many others had honorable mention.

Croup is essentially an acute inflammation of the mucous membrane of the larynx and trachea. Probably in most cases the sub-mucous tissues are likewise involved. As a result of this inflammation, there is an exfoliation of degenerate and enlarged epithelial cells, and, according to most pathologists, a transudation of fibrin. Pus cells are also produced in abundance. These three elements, epithelial and pus cells, and fibrin, form themselves into a membrane of variable thickness and extent. The membrane may be as thick as a silver dime or of gossamer-like tenuity. It may consist of one or more isolated and ragged-edged patches, or it may constitute a perfect lining of the larynx and trachea and of the primary bronchi. It may even dip down into the smaller air tubes, and stand, like a tree inverted, with its trunk at the throat and its hundred branches extending in every direction through the lungs. This membrane is not endowed with vitality, nor has it any firm attachment to the underlying tissues. It can readily be peeled off without injury to the mucous membrane over which it is spread, and within a very few days after its formation it begins to soften and break down from putrefaction. It is usually of a light gray or ash color, and its free surface is often covered by a yellowish layer of muco-pus.

This adventitious formation is not, however, the sole outcome of the inflammation. The mucous membrane tself is thickened. Serum escapes from the engorged blood-vessels, producing infiltration of the cellular tissue-œdema.

Now, remembering how small the glottis is in a little child, and how, in this state of active inflammation, it is encroached upon by œdema, by a swollen mucous membrane, and by the new layer, we are prepared to appreciate the cause and import of the terrific symptoms that are present in every case of membranous laryngitis.

The causes of croup are mainly atmospheric. It is oftenest met with in situations where coldness and dampness are conjoined. It is frequent with us from November to April, but the summer months are not wholly exempt from it.

Symptoms.—The initial symptoms are usually so slight as scarcely to attract attention. They are the ordinary phenomena of a cold in the head, as some sneezing and nasal discharge, and some fever, especially at night. Quite likely, there is some cough and hoarseness, and a sore throat, not sufficient, however, to occasion any apprehension as to the safety of the child. There is but one of these symptoms that could lead you to a suspicion of the trouble that is impending, and that is hoarseness. A child with a common cold is not, usually, hoarse, and when it is so, there is ground for apprehension and watchfulness.

In a day or two, some of these symptoms become more pronounced; the cough is more frequent, and its dryness and hoarseness are more apparent. As compared with the clangous resonance of *spasmodic* croup, we would call it a suppressed cough. The voice is hoarse, stifled, and indistinct, and articulation seems to be painful. The child breathes with manifest effort. Inspiration is prolonged and attended with a stridor—a harshness, as though the air was drawn through a narrowed orifice. With the stethoscope you may locate exactly the point of obstruction. The fever has increased, and the little one has lost interest in its play. By spells the symptoms are intensified, but they do not at any time wholly disappear. You will often observe nightly exacerbations, and the morning may bring a remission so considerable as to lead to a false hope of recovery. By this time, the nature of the malady is evident, though probably it was not so at first. I should state here that while true croup is usually introduced by a catarrhal stage, as I have sketched it, it is not always so. Now and then, it begins suddenly in a night attack, precisely as does *spasmodic* laryngitis.

The disease is soon at its height, and the phenomena are now most distressing to witness. The cough is more stifled, but not less hoarse than before. Aside from a little mucus that has been churned into foam by the respiratory efforts, there is little expectoration, unless, as is common, there is an accompanying bronchitis. Paroxysms of coughing occur, so severe and prolonged that they seem to threaten instant suffocation. In some instances shreds and even complete cylinders of false membrane are coughed out. Unfortunately the relief that follows is generally transitory, the membrane being soon reproduced. The voice becomes nearly or quite suppressed, and the child makes its wants known partly by signs, partly by an indistinct, interrupted whisper. If it tries to cry, there is little sound in proportion to the effort put forth. In many cases no attempt is made to use the voice in speaking or crying, because it is painful.

The dyspnœa is now extreme, and the whole atten-

tion of the child is absorbed in the effort for breath. Its head is thrown back, for it has found that in that position it can draw the most air through its glottis. Respiration is hurried, for so little air is passed at one inspiration through the narrowed and narrowing air tube that the child *must* breathe rapidly or die at once from apnœa. Both respiratory movements are attended by a peculiar whistling sound, but that of inspiration is the louder and more prolonged. The alæ nasi rise and fall with every breath like the nostrils of an over-driven horse. All the auxiliary, as well as the ordinary, respiratory muscles share in the unequal struggle for air. At every inspiration the larynx is drawn downward towards the sternum, and the intercostal spaces are depressed because the lungs are not expanded. For the same reason the diaphragm is deeply arched upward, and the boundary line between chest and abdomen is marked by a deep groove. The conflict becomes continual, and most painful to witness. The child is extremely restless; it reaches its arms to its mother to be taken, but soon motions to be put down again. It throws itself from side to side, vainly seeking for the "life-giving air." In its frantic efforts to remove the obstruction, it clutches at its throat and tears away the neck coverings. The surface is bedewed with moisture, and the features express the utmost anxiety and distress. You will see nothing in practice that will move your sympathies more than these little sufferers looking appealingly to you for the help that you would most gladly give them if you could.

At times there is some abatement in the urgency of the symptoms, and the over-wearied child falls into an uneasy slumber. But the call for air soon becomes imperative; it awakes with a start, has a fit of coughing, and the conflict is renewed. But though the patient struggles with all its mind and strength, the increasing lividity of its lips, and cheeks, and fingers-tips show how hopeless the struggle is.

If you lay your ear to the thorax at this stage of croup, you find the vesicular murmur diminished in proportion as the amount of air inspired is diminished. You cannot fail to hear the loud laryngeal râles that are transmitted over the whole chest. The percussion note will be normally resonant, unless pneumonitis or somewhat extensive collapse are associated with the croup.

Evidently, symptoms of such urgency as I have been describing cannot go on indefinitely. Relief must come soon, or the child will sink from the violence of its struggles and the need of air.

Not long after lividity of the surface is first noticed, there begin to be signs of carbonic acid poisoning. The cough becomes less, and may even cease entirely; the restlessness abates, and the anxiety of countenance gives place to indifference, because the nerve centres, supplied by impure blood, are no longer alive to the desperate situation. The child *seems* so comfortable, as compared with its condition but a little while since, that the friends may think it has taken a turn for the better. But the growing frequency and feebleness of the pulse, the continued rapidity of breathing, and the increase of bronchial râles, will warn you not to share in a hope that is born of ignorance. Towards the end, the patient usually becomes unconscious, and dies quietly in a state of coma. In some instances there are slight convulsive movements.

I would have you remember that sudden death sometimes occurs before the disease has run the course that I have marked out. This is due, generally at least, to occlusion of the air-tube from a detachment and falling inwards of some portion of false membrane. Probably, death may also be caused, especially if there is bronchitis, by an accumulation of muco-pus below the obstruction.

The duration of croup is subject to considerable variation. Now and then it lays hold with such violence as to carry off a strong child in thirty-six or even twenty-four hours. The majority of fatal cases will run from three to six days. In occasional instances it is less severe—subacute—and runs a tardy but still fatal course of from two to three weeks.

But not all cases are fatal. Sometimes the cough under treatment becomes softer, the breathing less stridulous, the fever less, and the child passes from a condition of extreme danger and distress to one of comfortable convalescence.

In case of recovery, the false membrane becomes softened and broken down, and is then expectorated.

But do not be over-sanguine in your prognosis as long as there is any hoarseness of voice or harshness of breathing, for it may happen to you, as it has to others, to see a marked improvement in symptoms followed by relapse and speedy death.

Croup is not a contagious disease. It is said to be sometimes epidemic, but I think it questionable whether in those instances when it was said to be so prevalent, as in 1805, 1806, and 1807, the real disease was not diphtheria. Whether one attack confers protection against future attacks I do not know, but it seems to be a fact that children very rarely suffer a second time from genuine croup. It is different, you will remember, with simple catarrh of the larynx, which is very prone to recurrence. But in both affections, second are said to be lighter than first attacks. There is another fact that I am quite unable to explain, and that is that male children are much more subject to croup than female. We shall take up the treatment at our next lecture.

ORIGINAL ARTICLES.

PURPURA HÆMORRHAGICA, HÆMATURIA, AND MUCOUS HÆMORRHAGES,

APPARENTLY CAUSED BY THE ADMINISTRATION OF AMMONIUM MURIATE.

BY A. B. ISHAM, M.D.,
OF CINCINNATI, OHIO.

THERE are few facts of medicine better known than that ammonia possesses the power to defibrinate the blood. From this property it would naturally be supposed that hæmorrhages would follow the saturation of the blood with ammonia, but, upon turning to such sources of reference as are readily accessible, there is found only the vague statement that it may occasion scorbutic symptoms, and the general one, that hæmorrhages result from its injection into the blood. Although its salts are used in large doses, and long continued, in a number of affections, as, for instance, embolism, hepatitis, catarrhal pneumonia, bronchitis, neuralgia, and adynamia, we have not yet met with a case recorded where a marked hæmorrhagic condition was produced by it. If the administration of ammonium muriate, in doses regarded as medicinal, may give rise to sequelæ similar to those reported below, it is singular that, with such extensive employment of this agent, no publication has been made of such results. It is more than a matter of passing interest; it is one of importance, since with large and increasing therapeutical application grave mischief may be done with a substance capable of effecting such alterations in the circulating fluid, unless some warning is sounded by those who may happen to meet with

cases where its prolonged or too liberal use as a medicament has seemed responsible for phenomena which may properly be called toxic. A single case by itself is inconclusive, and it is familiar that appearances similar to those observed in the subjoined case occur sometimes in children without appreciable cause. Nevertheless, a report of it is ventured, because there is no recognizable etiological element standing in relation to it, except muriate of ammonia, and because it is considered of moment sufficient to be put forward as a call for analogous cases, in the event that any such have been met with.

E. K., æt. twenty-two months, came under observation January 12, 1882. The child was without fever, was apparently well nourished, had a pulse of slight force and small volume, but presented nothing decidedly abnormal, except fifteen to twenty blebs, filled with dark-colored blood, scattered over the scalp, face, arms, mucous surface of lips, sides of the tongue, hard palate, and gums. These blebs were generally about the size of a pea, a few a little larger, some rounded and of regular outline, while others were flattened, and of irregular shape. There was also hæmaturia and bloody discharges from the bowels. The blood in the urine and feces had been noted the 10th of January, while the skin and mucous membrane hæmorrhagic collections did not attract attention until the evening of the 11th. The child had previously been under treatment from December 19, 1881, for catarrhal pneumonia, and she had been discharged convalescent December 31. During the illness the following was prescribed: ℞. Ammonii muriat, gr. xvj.; Syr. ipecac., ʒij.; Glycerine, ʒvj.; Aq. dist., ʒj.; M. Sig. One teaspoonful every three hours.

At the date of discharge, the above prescription was ordered discontinued, but, upon inquiry, it was learned that it had been continued ever since, because the mother thought it strengthened the child, and that, if something was not given, the disease might return again, as a little cough was noticed occasionally. The solution was ordered stopped, and tincture of chloride of iron was substituted, under which, in a few days, the hæmorrhages were arrested, and the purpura hæmorrhagica disappeared.

WARM BATHS IN CATARRHAL PNEUMONIA.

BY E. STUVER, B. SC., M.D.,
OF RAWLINS, WYOMING TERRITORY.

I REPORT the following case for two reasons: First, because the treatment of acute inflammatory affections of the organs of the chest by means of warm or tepid baths, is either entirely ignored, or merely alluded to by standard authorities; second, because the symptoms of the case were of such gravity as almost entirely to preclude any hope of recovery.

As a preface to the history of the case, I will state that we are located in a comparatively dry and equable climate, at an altitude of about 7000 feet above sea level, and that although cases of pneumonia occasionally occur in the late autumn, winter, and spring months, it is not, at least in my experience, a disease of great frequency.

I was called to see Willie, æt. twenty months, at 2.30 P.M., December 1, 1881, and obtained the following history: Has always been very robust, and enjoyed remarkably good health, until a week or so ago, when he contracted a severe "cold," accompanied by a severe and painful cough; has been losing flesh quite rapidly for several days; appetite is poor—he takes nothing but milk; bowels quite regular; during the greater part of the time for two or three days past he has been lying in a semi-unconscious state, except when roused by pain of coughing. Following conditions were noted: Cheeks slightly flushed over a circumscribed space, but otherwise of a pallid, leaden hue; expression pinched and anxious; pupils normal; tongue thickly coated with a yellowish-brown fur; abdomen somewhat distended, but not painful on pressure; coughing is painful, and causes him to cry, but it is a cry devoid of tears. The characteristic expiratory moan is present at intervals. Auscultation revealed bronchial respiration, with subcrepitant and indistinct crepitant râles over the greater portion of the chest, but most clearly marked on the left side. Temperature (Kew), 106⅘°; pulse, 150; respiration, 64. Gave a mild saline aperient, and the following ℞.: Quiniæ sulphatis, grs. xvi.; Spts. vini gallici, fʒii.; M. Sig. one-half drachm in water every two hours.

2d.—8 A.M.: Temperature, 104°; pulse, 130; respiration, 60. 4 P.M.: Temperature, 103⅖°; pulse, 150; respiration, 65. This morning gave three grains quinia from 8 to 9 o'clock, and continued the preparation above indicated during the day.

3d.—8 A.M.: Temperature, 105°; pulse, 150; respiration, 70. 1 P.M.: Temperature, 104⅘°; pulse, 150; respiration, 65. 7 P.M.: Temperature, 105°; pulse, 150; respiration, 65. Pursued same treatment as yesterday, and, in addition, gave one grain ammonium carbonate every hour, until four doses were taken, and then the same amount every two hours during the day; also, Potassium acetate, grs. ii., and Spts. etheris nitrosi, ɱx. Sig. every four hours, increasing the quantity of brandy. Notwithstanding the active stimulating and antipyretic treatment above described, the symptoms were increasing in gravity, the respiration irregular and labored, the pulse small and weak, and the countenance pallid and anxious.

At 7 P.M. it was decided to employ the warm bath. The patient was stripped naked, and in order to avoid frightening him, placed in a blanket over the bath-tub and thus lowered into the water, which had a temperature of 100° Fahr., at the beginning, but was gradually lowered several degrees. Over the upper portion of the chest, which was not entirely submerged, water from the bath-tub was thrown or douched quite rapidly by the hands for about fifteen minutes. He was then removed, the skin thoroughly dried, and friction, just sufficient to produce a nice glow, kept up for several minutes; he was then carefully enveloped in blankets and returned to bed. The temperature fifteen minutes after removal from the bath was 103⅘°; both the pulse and respiration were fuller, stronger, and less frequent. The bath had a general tranquillizing effect, and he slept better than usual for some time

afterwards. Just before entering and after coming out of the bath, about two drachms of the best brandy were administered, in order to obviate any depressing effects. The same precautions were adopted in all the subsequent baths.

4th.—8.30 A.M.: Temperature, 104⅕°; pulse, 130; respiration, 55. Bath of 100°, cooled to 94,° being employed for fifteen minutes, temperature fifteen minutes after coming out was 100°. 1 P.M.: Temperature, 104⅕°; pulse, 135; respiration, 70. 7 P.M.: Temperature, 102⅕°; pulse, 130; respiration, 56. No large doses of quinia given this morning; other medicines continued as before. Cough not so painful, and breathing less labored this evening.

5th.—9 A.M.: Temperature, 103⅖°; pulse, 130; respiration, 60. After being in a bath of 103°, cooled to 97°, for fifteen minutes, temperature, 102⅖°; respiration, 50 and fuller. 5 P.M.: Temperature, 101⅘°; pulse, 120; respiration, 55. Gave 3½ grains quinia this morning; usual medication continued.

6th.—8.30 A.M.: Temperature, 104°; pulse, 140; respiration, 65. After bath of 102°, cooled to 96°, for fifteen minutes, temperature, 102°; pulse, 140; respiration, 55. 4.30 P.M.: Temperature, 101⅗°; pulse, 128; respiration, 55. After the bath to-day, he lay quiet all forenoon, but in the afternoon tossed and moaned considerably. Gave the following: ℞. Ammonii carbonatis, ℈i.; Pulv. acaciæ, ℥ss.; Tr. digitalis, gtt. xx.; Aquæ, f℥ii. M. Sig. one drachm every two hours.

7th.—8 A.M.: Temperature, 101⅘°; pulse, 120; respiration, 45. 5 P.M.: Temperature, 101⅖°. Considerable general improvement is noticeable to-day: bowels, which had been constipated for several days, moved both late yesterday evening and this morning; tongue cleaned off nicely; color is returning to face, which has a more natural expression; appetite much improved, enabling him to take considerable nourishment during the day. Has been fretful and irritable all day.

8th.—8 A.M.: Temperature, 98°; pulse, 112; respiration, 50. 4 P.M.: Temperature, 99; pulse, 112; respiration, 42. Continued the ammonium carb. and tr. digitalis preparation, but substituted beef, wine, and iron for the brandy and quinia. To-day follicular stomatitis developed on the tongue and inside of the gums. This yielded in a few days to a mixture of borax in glycerine.

There was retention of urine for about twenty-four hours, from December 8th to 9th, relieved by spirits etheris nitrosi and warm applications to the bladder. The child was quite fretful for some time, and convalescence progressed tardily. This was largely due, however, to bad hygienic surroundings and want of properly prepared food, and careful attention. Notwithstanding these impediments, he finally made a good recovery.

Although the data derived from a single case do not justify us in drawing general conclusions, yet the effects were so invariably gratifying that we are led to hope warm or tepid baths will be much more generally adopted, and be the means of alleviating suffering and saving life.

HOSPITAL NOTES.

METROPOLITAN THROAT HOSPITAL.

(Service of Dr. CLINTON WAGNER.)

A RARE FORM OF NASAL TUMOR—REMOVED BY OPERATION.

(Reported by DR. GUY F. WHITING.)

MRS. E. R., aged twenty-three, presented herself at the Metropolitan Throat Hospital, August 20, 1881, complaining of having suffered during the last two months from frequent and severe hæmorrhages from her left nostril. It was noticed that she breathed with difficulty and with her mouth opened, and upon being questioned she stated that she had not been able to breathe with ease for over a month, and that it had become gradually worse, so that for the last few weeks she was compelled to breathe through her mouth. She was very weak and anæmic, and it was evident that there had been a great drain upon her system. Her nose presented rather a strange appearance, the lower part being twice its natural size, and protruding about two lines out of its left anterior naris, and entirely filling it, was a tumor covered with dried and coagulated blood. Since she had only been aware of the presence of this tumor for the last four weeks, it must have been of very rapid growth. The cartilages of the left ala had been pushed outward from their normal position, and presented a protuberance the size of an English walnut. The septum, being subjected to the same pressure as the left ala, had been forced so far to the right that it nearly entirely occluded the right nostril. In fact there remained so little breathing space that the patient was compelled, as stated above, to resort to the baneful practice of mouth-breathing. An examination, made to ascertain the character and attachment of the growth, brought on quite a severe hæmorrhage, which was checked with difficulty. The tumor was found to be attached to the middle turbinated bone. A rhinoscopic examination showed that neither the vault of the pharynx nor posterior nares were involved. It had not the softness or compressibility of a mucoid polypus, but felt under the probe more firm and resisting. Portions of the growth that were brought into view were of a dark bluish color and very vascular. Several small erosions of the mucous membrane were to be seen upon its surface, and bled readily and freely when touched with the probe. As above stated, the growth was exceedingly vascular, and we are of the opinion that it was a pulsating tumor.

On August 22, the tumor, measuring an inch and a quarter in diameter, was removed with the snare. The operation was followed by a profuse hæmorrhage, almost producing syncope, and was checked only by tamponing the nostril. Fearing that there might be a return of the hæmorrhage, directions were given that the tampon should not be removed for twenty-four hours. In a few days the nose resumed its natural size and shape, and the patient was discharged from the hospital with orders to report from time to time. She was examined several times during the following two months, and, as there was no evidence of the growth returning and no traces of it remaining, she was finally discharged.

The tumor being examined by Dr. Heitzman under the microscope, presented some very interesting features. The main mass consists of a delicate reticulum of fibrous connective tissue with nuclei at the points of intersection. The meshes of this reticulum contain, besides delicate fibres, a homogeneous, jelly-like, basic substance, and imbedded in this a moderate quantity of globular protoplasmic bodies. The reticulum is fully supplied with capilliary blood vessels.

This structure is characteristic of tumors of the myxomatous variety. Towards the periphery the myxomatous portion of the tumour is abundantly infiltrated with globular protoplasmic bodies, especially is this the case in the neighborhood of the above-mentioned ulcerations, and is a feature indicating rapid growth.

Towards the base of the tumor large portions are marked by a higher degree of consistency, and are built up of a relatively coarse reticulum of connective tissue fibres, or bundles of fibres, enclosing comparatively small spaces of a homogeneous basic substance, and a small number of protoplasmic bodies. These features are characteristic of those tumors termed myxo-fibroma, and represent the transition stage of the myxoma into fibroma. Large portions of the tumor exhibit a structure consisting of a frame of connective tissue enclosing large and regularly distributed spaces, which are filled with blood. This framework represents the walls of cavernous spaces, spaces like in structure to those of the cavernous bodies of the penis. The inner surface of the walls of these spaces are lined with an extremely delicate endothelium. This portion of the tumor must be classed under the head of angioma, and belongs to the cavernous variety.

Thus we see that the growth is of a very complicated structure, one portion being a myxoma, another a myxo-fibroma, and still another an angioma of the cavernous variety.

Remarks.—There are, as far as we have been able to learn, only two recorded cases of nasal tumors resembling the above. One is mentioned by Virchow, as having been reported by Beauchêne. The other case is reported by Dr. Clinton Wagner, in the Archives of Clinical Surgery, January, 1877. The growth in the latter case was attached to the septum amd was removed with the knife. The operation as in the present case was followed by severe hæmorrhage.

MEDICAL PROGRESS.

The Bacillus of Tuberculosis. — Dr. Koch, member of the Imperial Board of Health, demonstrated, on March 24, in an exhaustive lecture accompanied by illustrations, and delivered before the Physiological Society, that tuberculosis (miliary tuberculosis, cheesy pneumonia, etc.) is, beyond all doubt and peradventure, a bacteria disease (*Bakterienkrankheit*), caused by a bacillus resembling the *bacillus lepra*.

1. By a certain method of coloring the preparations (methylene violet and resuvin), Dr. Koch was able, in every instance, to demonstrate the characteristic and always motionless, bacilli, especially in places where the process was more recent, and more sparingly where the process was of longer standing, as in the giant cells.

2. Dr. Koch succeeded in cultivating this bacillus outside of the animal body, and free from all admixture of foreign animal material, on a specially prepared blood serum gelatin. The bacillus grows very slowly, thrives only at a temperature of between 30° and 42°, and also differs essentially in other respects from other pathogenic bacilli and micrococci, cultivated in a pure state.

3. With these bacilli, cultivated outside of the organism for 200 days, from flask to flask, Dr. Koch succeeded in a series of experiments conducted with all conceivable precautions, in inoculating tuberculosis (and the pearl-disease of cattle, which shows the same bacilli) in a characteristic and decisive manner. Inoculation in different places, as well as injections into the circulation, produced acute miliary tuberculosis, and, after a longer interval, cheesy processes. He even succeeded, by means of these inoculations, in rendering tuberculous, in a comparatively short time, animals which otherwise enjoy immunity from the affection, such as dogs and rats.—*Deutsche Med. Zeit.*, March 30, 1882.

Ankylostoma in France and Miners' Disease.—M. E. Perroncito examined three cases of miners' disease occurring in the practice of Dr. Rieumbault at Sainte Etienne and found in the dejecta large numbers of eggs of the ankylostoma, thus explaining the intense anæmia from which the patients suffered and proving that the parasite is not confined to the St. Gothard region, where the author discovered it, but is to be found in other parts of France.—*Journ. de Méd. de Paris*, Feb. 4, 1882.

Laryngeal Electrization.—Can the nerves and muscles of the human larynx be excited directly by electrical stimulation applied through the skin? To this question Rossbach has endeavored to obtain an answer, and his experiments enable him, he believes, to give an affirmative reply. An individual was selected, tolerant of laryngoscopic examination, and a knob-shaped moist electrode was placed midway between the larynx and the sternum, in front of the anterior edge of the sterno-mastoid, being pressed as deeply in as could be without causing much pain. The other electrode was placed in some indifferent situation on the back of the hand. With this arrangement, whenever an opening or closing shock was sent between the poles, on the side on which the electrode was placed in the neck a distinct contraction could be observed. The vocal cord moved inwards in its whole extent, together with the arytenoid cartilage. The closure contraction was the strongest when the cathode, the opening contraction when the anode, was placed on the neck. Immediately after the stimulation a movement of swallowing occurred, which rendered further observation inpossible. If the stimulation was made while a note was being uttered, the effect was to increase the pitch without interrupting the sound. The effect is ascribed to stimulation of the recurrent laryngeal nerve. Experiments with faradization yielded the following conclusions. The passage of a strong current transversely through the larynx, an electrode being placed on each side of the thyroid cartilage, had no effect on the vocal cords or on the arytenoid cartilages. The free upper edge of the epiglottis was drawn forwards and its lower part backwards. The aryteno-epiglottidean folds were moved inwards, together with the false vocal cords. If one electrode was placed on the side of the larynx and the other on an independent place, the effect was the same, but was confined to one side. A slight movement of the vocal cord was produced by an attempt to faradize the recurrent laryngeal nerve of one side, and the effect was still more marked if an electrode was placed over each recurrent laryngeal, a distinct tremor of the arytenoid cartilages being produced. Hence Rossbach concludes that, in addition to the reflex effect of a painful cutaneous stimulation and to the effect on the larynx of stimulation of the external muscles, electricity applied outside the larynx can directly stimulate, feebly but unquestionably, the laryngeal nerves.—*Lancet*, March 4, 1882.

Acute Cardiac Affections in Old Age.—M. Ch. Féré believes, from a careful study of this subject, that acute affections of the heart, occurring in old age, are rarely due either to acute or sub-acute rheumatism, and that even though acute rheumatism may occur at this period of life, it rarely implicates the heart. On the other hand, he thinks that, although pulmonary affections may produce pericarditis, cardiac lesions in the old can almost invariably be traced to some renal affection.—*Revue de Méd.*, March 10, 1882.

SEPARATION OF THE CRANIAL BONES IN MENINGITIS.—M. PARROT records (*Rev. de Méd.*, February, 1882) three cases of meningitis in children (occurring in his clinique at the Hôpital des Enfants Assistés in Paris), in which, post-mortem, the bones of the skull were found separated along their sutures, apparently by the increase in size of the diseased brain. The cases are briefly as follows:—*Case* 1: A boy, aged two years and nine months, was admitted for diarrhœa. He had also some slight pulmonary trouble, with elevation of temperature. On the day following his admission he had some slight rigidity of limbs, with intermitting twitchings. On the second day epileptiform convulsions set in; *tache cérébrale* was manifest. Death ensued on the third day after admission. At the post-mortem examination, on removing the scalp it was seen that the bones of the calvaria were separated from each other, especially along the coronal, sagittal, and frontal sutures, and the intervening space was filled with a blood-stained material. The extent of the separation reached as much as three millimetres. *Case* 2: A boy, aged two years, was admitted with marks of congenital syphilis and diarrhœa. He died six days later of tubercular meningitis. At the autopsy, the parietal and frontal bones were found separated along the coronal suture to the extent of two millimetres, the interval being filled with a blood-stained material; to a less extent, the sagittal and lambdoid sutures were separated. The ventricles contained a considerable quantity of fluid, and the brain-substance was much softened; tubercles were abundant. *Case* 3: A boy, aged three years, was under treatment for conjunctivitis; he recovered from this. Shortly afterwards, tubercular meningitis supervened, and he died. In this case the bones were separated three millimetres, the interval being filled with blood. The surface of the convolutions, which were much flattened, was covered with a thick layer of puriform lymph. There was no fluid in the ventricles, which appeared normal. (We have only mentioned the cerebral lesions in these cases for the sake of brevity.) M. Parrot regards this lesion as due to the pressure of the diseased brain, which, in consequence of the inflammatory changes, more or less quickly increases in size. This increase in size, about which there may be differences of opinion, he thinks is proved, first, by the flattening of the convolutions, but chiefly by the weight. In the preceding cases the brain weighed from 78 to 110 grammes more than the average for the corresponding age in health. This increase of weight may depend on several causes. One of them is the inflammatory or tubercular infiltration which existed in all these cases, as well as hydrocephalus in one of them. A condition which is almost essential for the development of such displacements is an acute onset of the encephalo-meningeal lesions; for, as is well known, if the changes occur slowly, the cranial cavity adapts itself to the increasing volume. The age of these patients rendered it more than probable that no membrane existed at the sutures; but at the same time, and for the same reason, the sutures were less solid than at a more advanced period of life. M. Parrot, on looking back at the cases, could not point out that any signs had existed during life indicative of such a condition. In all the cases the lambdoid suture was less affected than those situated in the forepart of the skull, while the basal sutures were quite unaffected. This is explained on physiological grounds, viz., that the brain tends to increase in an antero-superior direction more than in any other, both in health and disease.—*Med. Times and Gaz.*, March 18, 1882.

EXTIRPATION OF THE KIDNEY.—PROF. ROSENBACH reports a case of pyelitis and calculus of the right kidney, with several perinephritic abscesses, in a man aged forty-two years, in which he removed the kidney, the incision being made at the outer border of the erector spinæ muscles from the border of the last rib to the crest of the ilium. The wound was treated with iodoform and the patient made a speedy recovery.—*Berliner klin. Woch.*, Jan. 30, 1882.

RETRO-PHARYNGEAL ABSCESS AND SCARLET FEVER.—DR. LEWANDOWSKY, in recording two cases of retro-pharyngeal abscess after scarlet fever, in the *Berliner Klinische Wochenschrift*, No. 8, draws attention to the comparative rarity of this complication of scarlet fever, although inflammatory conditions of contiguous or neighboring parts of the neck are so very common. Dr. Schmitz did not find one single case in the St. Petersburg Children's Hospital among 450 cases of scarlet fever. Dr. Bokai, on the other hand, gives seven cases as occurring among 664 cases of scarlet fever, being in the proportion of 7 out of 144 cases of retro-pharyngeal abscess which he had collected together. *Case* 1: A child, one year old, contracted the fever (two other children had died of the malignant form), apparently not very severely. There was early some inflammation about the posterior nares, as evidenced by a copious muco-purulent discharge from, and swelling about the base of, the nose. Fauces not unduly inflamed or affected. About three weeks after the commencement of the fever, convalescence being slow and variable, but without any symptoms specially pointing to the retro-pharynx, a swelling was noticed on the left side of the median line, with distinct fluctuation. An incision was made into it, and about half an ounce of thin yellow pus let out. The child then rapidly recovered. *Case* 2: A boy, aged seven months, sickened with a mild attack of scarlet fever. The catarrhal symptoms in the fauces were slight; but there was a copious discharge of muco-purulent material from the nares. Convalescence was proceeding slowly, when (on the tenth day) a peculiar snorting respiration came on. On examining the fauces, a swelling was seen, which fluctuated on pressure. An incision was made into it, and a tablespoonful of good yellow matter was evacuated. The child soon recovered completely. In some remarks, the author points out that it is especially in young infants that this form of abscess mostly occurs. They were on one side of the fauces only; their development was slow, and subacute in form: and thus there were none of the symptoms of suffocation and difficulty in swallowing which occur in more acute cases. On this account, perhaps, they may occasionally be overlooked. Mere inspection of the fauces does not suffice for their recognition; the finger is almost always necessary. Prognosis is not unfavorable; an incision is the proper treatment to adopt.—*Med. Times and Gaz.*, March 18, 1882.

ARSENICAL POISONING.—Dr. N. POPOFF, after a series of experiments in Mierrzejewski's laboratory (*St. Petersburg. Med. Woch.*, No. 33, 1881), comes to the following conclusions respecting arsenical poisoning: 1. That arsenic may, within a few hours after its application, cause an unmistakable alteration of the spinal cord, which may manifest itself either as myelitis centralis acuta or poliomyelitis acuta; 2. That in more chronic cases an inflammation may result, not only of the gray substance, but of the white also, constituting a diffuse myelitis; 3. The peripheral nervous system is unaffected in those cases in which death occurs within three months after the reception of the poison; 4. That the paralyses from arsenic poisoning are of central origin. He has had similar results with lead, and believes that in long-continued metallic poisoning, alterations in the spinal cord are very likely to occur.—*London Med. Record*, March 15, 1882.

THE MEDICAL NEWS.

A WEEKLY JOURNAL

OF MEDICAL SCIENCE.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE MEDICAL NEWS will be liberally paid for upon publication. When necessary to elucidate the text, illustrations will be furnished without cost to the author. Editor's Address, No. 1004 Walnut St., Philadelphia.

SUBSCRIPTION PRICE, INCLUDING POSTAGE,

PER ANNUM, IN ADVANCE, ... $5.00.
SINGLE COPIES, ... 10 CENTS.

Subscriptions may begin at any date. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address, HENRY C. LEA'S SON & CO.,
Nos. 706 & 708 SANSOM STREET,
PHILADELPHIA, PA.

SATURDAY, APRIL 29, 1882.

THE BACILLUS OF TUBERCULOSIS.

THE germ theory has received a new and powerful impetus by the recent discovery by KOCH of the specific parasite of tubercle. The remarkable observations leading to its detection, and the experiments showing its infective property, were announced by Dr. Koch in a paper read before the Berlin Physiological Society, and which appeared in the *Berliner klinische Wochenschrift*, April 10, 1882.

This is not the first announcement of discovery, showing the infective nature of tubercle; since the suggestive but rather abortive experiments of Villemin, there have been numerous papers setting forth some supposed, and a few actual, facts throwing light on the self-propagating power of tuberculous matter. There have been announcements, indeed, of the discovery of the specific germ. Schüller had found in the tubercular material of strumous joint affections, a peculiar micrococcus; Klebs had demonstrated in tubercle a bacillus which he held to be its specific germ; and Aufrecht had seen in tubercle-mass a minute organism of rods and granules, which to him possessed the same significance. But none of these observers, had not only demonstrated the form, position, and characteristics of the new parasite, but had cultivated it in special culture fluids, and, what is still more conclusive, produced tuberculosis by the inoculation or implantation of the supposed infecting parasite. Such are the remarkable achievements of Koch.

The new parasite, as described by the discoverer in the paper above mentioned, is a very minute, rod-shaped body, in its greatest length having dimensions one-half to one-fourth the diameter of the red blood globule. It resembles strongly in appearance and shape the *bacillus lepræ*. The parasites are found in greatest abundance wherever the tubercle process is going on with the highest activity, developing at the borders of the tubercle-granule and in the so-called giant-cells. Koch gives a number of cases of tubercular disease of various organs, in which he found the parasite maintaining a vigorous but motionless existence where the formation of tubercle was going on most actively. By a carefully devised method of staining, Koch is able to separate the parasite from the adjacent material. In his paper he gives full details of the process. He has, also, happily succeeded in his culture experiments. In a blood-serum gelatine fluid, maintained carefully at a temperature between 86° and 108° Fahr., at which only they will thrive, he was able to make them grow in the slow manner peculiar to them.

Now comes the crucial experiments. If this parasite be the specific infective material, it must, if the culture methods are not faulty, develop tuberculosis in those animals susceptible to the action, and proper hosts of tubercle. Koch carefully cultivated the parasites in the culture fluid kept in flasks at the proper temperature for several months, and then inoculated various animals, who without exception became tuberculous. Animals not readily susceptible to the action of tubercular matter in the ordinary state, as dogs and rats, were affected by the parasite actively, and suffered from tubercular disease in its typical manifestations. The infectious disease—*perlsucht*, in animals, corresponding to tuberculosis in man, it is interesting to note, contains the same parasite, capable of the same mode of cultivation, and producing the same morbid state by inoculation.

The evidence thus seems conclusive; it only remains to develop, from the cultivated parasite, tuberculosis in man to complete the cycle of evidence, and to establish Koch's discovery amongst the great facts of medical science. Prof. Tyndall maintains the genuineness of these observations, and is fully alive to their transcendent importance. He calls attention to them in a letter to the *London Times*.

No one can fail to be profoundly impressed with the painstaking skill of the discoverer, and the far-reaching consequences of the discovery. In the facts laid before our readers, may be the solution of the problem so long regarded as insoluble—the cure of tuberculosis. If Pasteur's culture experiments have led to the discovery of a method by which the poison of splenic fever is rendered harmless, and the disease prevented by the timely inoculation of the modified virus, may we not hope that the time is not distant when the ravages of consumption will be prevented by the inoculation of a modified bacillus?

The medical profession of the whole civilized world will now await with the keenest interest the developments which may be expected from the further study of the *bacillus tuberculosis*.

GUNSHOT WOUNDS OF THE PERITONEUM.

GUNSHOT wounds of the peritoneum are almost as certainly fatal as the hangman's rope. They kill over ninety per cent. In our late war Dr. Otis gives the results of 3,717 cases, with a mortality of 87.2 per cent.; but in 2,599 of these cases, with inexactly known visceral injuries, the mortality was 92.2 per cent. They are the most fatal of all gunshot wounds. Even bullets through the brain are less fatal than those passing through the belly. And what hitherto has been our treatment? Postural treatment, which rarely did much good even if successfully maintained, opium, liquid diet—and death, after a period barely long enough to make a will. Surely the time has come for a change, the uncertain perils of which can scarce equal those that certainly beset our present method.

We are led to these remarks by the perusal of an excellent paper presented to the American Medical Association last year, by Dr. Hunter McGuire, on Operative Interference in Gunshot Wounds of the Peritoneum. It is a vigorous onslaught upon our past *laisser aller* methods, and a strong argument in favor of discreet but decided interference to prevent death. It is precisely in the line of our editorial of January 21, on Abdominal Surgery, and is one of a number of what we deem reasonable endeavors to alter a pernicious, though well-meaning, conservatism. The suggestion of Legouest that the surgeon should interfere actively, has been ably seconded in our own country, in 1873 by McGuire, in 1876 by Dugas and Otis, and now again by McGuire and Sims.

The question of the diagnosis of visceral lesion, especially with a small external wound, is not easy.

The old idea of Travers and Bell, strangely countenanced in our own day by so good a surgeon as Mr. Erichsen, that the equable pressure of the abdominal contents is so effectual in preventing escape of feces, is now pretty fully exploded. Common sense, as Dr. McGuire says, teaches us that the fecal matter will follow the path of least resistance afforded by the opening, and common experience proves it to be so.

That a deep stab or bayonet thrust, or even a gunshot wound of the peritoneal cavity may occur without wounding of the viscera is certain though rare. Dr. McGuire gives four illustrations of the last. But in the vast majority of such wounds unquestionably the viscera are injured. What viscus is wounded is not a matter of indifference either as to prognosis or treatment. Thus, taking Otis's statistics, shot wounds of the liver and kidney are the least dangerous (63.5 and 66.2 per cent.), while those of the spleen are most so (93.1 per cent.), except wounds of the suprarenal capsule, of which a solitary fatal case is recorded. Recovery after wounds of the large intestine are quite numerous, while, *per contra*, those following wounds of the solid viscera and the small intestine, with extravasation of their contents, even in our late gigantic war, Otis says are so few that "the absolutely authenticated examples can be counted on the fingers."

The escape of feces is of course sufficient evidence of penetration; but a small external wound will scarcely allow of such evidence, while bloody stools, localized pain, etc., are not sufficiently positive indications upon which to base active interference. Jobert asserts that sudden meteorism is pathognomonic of visceral lesion. While we can scarcely admit his assertion without modification, it is no doubt true to a very large extent. Dr. McGuire adds to this the presence or absence of shock as an equally valuable symptom; but, Otis points out that this is often found in severe contusions without rupture, and also that we must endeavor to discriminate true shock from the collapse which attends severe internal bleeding. Another sign on which we decidedly need more light is the question of the temperature. Le Gros Clark points out the undoubted fact that it is depressed both in contusion and in visceral lesions, but has not been able to verify the assertion that the fall of temperature and the shock are proportionate to the proximity of the lesion to the stomach.

Dugas proposes to lay open the abdomen, ligate the vessels, examine the whole length of the alimentary canal if necessary, make of the ragged wounds (both parietal and visceral) clean incised wounds by trimming, and close them by animal sutures after removing all foreign substances. McGuire ably advocates the necessity of thorough drainage. This he would attain either by the wound if in a suitable position, or if not then by drainage, either through the recto-vaginal or the recto-vesical fold—a procedure readily adopted before closing the abdominal incision.

With careful antiseptic precautions and such excellent surgery as we believe the above to be, gunshot wounds of the peritoneum involving the viscera, while always dangerous and always sure to claim a large percentage of their victims, will yield many notable triumphs to the surgeon bold enough to claim them.

THE LAW OF THE COMMITMENT OF THE INSANE.

THE law of Pennsylvania provides that insane persons may be placed in a hospital for the insane by friends or relatives, never without the certificate

of two or more reputable physicians, after a personal examination made within one week of the date thereof; and this to be duly acknowledged and sworn to before some magistrate or judicial officer, who shall certify to the genuineness of the signatures, and to the respectability of the signers.

The law is loosely drawn; the practice under it yet looser. As to admissions, the doctors certifying may live in Oregon or China, come here with a patient, sign before a magistrate, and so put away the insane man. Nor, as the law reads, need the magistrate, any more than the doctor, be a citizen of this State. Probably—nay, certainly—the courts would decide that he was meant to be, but as surely this is not so stated in the text of this amazing piece of legislative wisdom.

Again, nothing in the law forbids two medical officers of an asylum to sign, etc., and so to commit. We have never known this power to be used, but it exists.

Admissions to asylums are also brought about in another way: A woman who is drinking or taking opium, or who is in the milder stages of melancholia, is persuaded by friends to go of her own will to an asylum, or is told that she will otherwise be sent as insane. Once there, the medical officers soon see fit to insist on certificates from without, and these are apt to be given with the more readiness when the patient has already been consigned to a place which marks all its inmates with the label—"Insane."

The part of the magistrate in committals is no less a farce. The signature must be real, the signer respectable. In a long and large experience, we have never known a magistrate to offer an objection to any person who said he was a doctor, and was willing to sign and pay. You need but to be a doctor of yesterday's making in Pennsylvania, be able to write, and be respectable, in order to decide if this or that poor fellow shall be shut up for treatment. Lastly, under our law, the certificate runs without limit as to time, whereas in England a period is set, after which it expires; whilst there, also, every admission to homes or private hospitals must be communicated to the Lunacy Officers of the Crown within a week.

As at present constituted, the State Board of Charities is limited to inspections of correctional, reformatory, and charitable institutions. Of course, this does not include private hospitals or homes, but whatever changes are made in our law of insanity, should cover all places in which the insane may be placed, and should hold these, be they small or large, to as strict account as the Board of Charities holds the great hospitals to, which it is charged to visit at the too-frequent interval of a year.

It is not well known by what experts the present law was drawn. Clearly, they were men with a large confidence in human nature, since, although they surrounded the committal of the insane with so many safeguards, they did not think it needful to exact any penalty for failure to comply with the statute. You must not do this or that! If I disobey, what will happen to me?—This is an unequalled charade. Answer, nothing!

One feature of English asylums we greatly need. It is the home for the convalescent, which is to be found associated with Bethlem, some of the great borough hospitals, and many of the great private asylums. Some years ago an effort was made to arouse the managers and superintendent of the Pennsylvania Hospital for the Insane to the need of such an adjunct. It failed utterly. And last year, the managers of the Friends' Hospital, at Frankford, were in like manner appealed to. Dr. Hall, the medical officer, was highly in favor of the step, but, although some money was offered from outside of the Board to assist the scheme, it met with no better fate than elsewhere. The value of such a home at Atlantic City would be very great. There is a noble chance to be had for not a very large expenditure.

It is not easy to see why there are no physicians, as a rule, in hospital boards, which are made up of men of high character, good aims, and total want of training. It would be an interesting thing to let a man trained to hospital inspection take a class of managers through a hospital. The visit is unexpected, the "head doctor" out; every foot of that building is seen, every attendant, and full notes are made, and a definite report. Really, a doctor might be of some value on such a board. Perhaps, three or four would not be out of place; and what the attendants in some hospitals disrespectfully call "dress parade," that is, "managers' day," might no more be heard of.

A serious, brief book, of numbered notes for hospital inspection ought to be a useful thing for visiting managers. It should resemble the little memorandum book carried during the war by inspectors.

FOUL AIR IN OUR PRIVATE SCHOOLS.

Our best families surely do not want to emulate the Indian mothers on the banks of the Ganges by a wholesale destruction of their daughters. Yet they are unwittingly doing so in sending them to many of the best-known and most highly esteemed private schools.

Most of these schools are held in our ordinary city houses, without the slightest provision for ventilation, or, in fact, any hygienic supervision whatever. The rooms, though large for a private family, are

necessarily overcrowded by the number of pupils in the class. Ventilating shafts, or even ordinary ventilators, are rarely provided; and to ventilate by opening windows in winter, is to expose the nearer girls to pneumonia, to save the further ones from suffocation. Their bed-rooms are, if possible, worse than the recitation-rooms, for they are more closely shut, and the continuous occupancy is far longer.

Few schools can have buildings specifically designed for the purpose, so we must submit to the facts as we find them; but every class- or sleeping-room should have at each window a board with two of the familiar curved tin tubes, which force the wind currents upward, and distribute them through the room. They are provided with dampers, also, to regulate the amount of air passing through them.

In buildings, however, provided for very large schools, we have a right to expect better things. Expense that a private teacher cannot incur, becomes in such a school a duty. Provisions that may be neglected in a school of fifty, without too serious damage to health, in a school of five hundred are not only necessities, but the neglect to provide them becomes almost criminal.

In consequence of asserted faults in the ventilation of the Packer Collegiate Institute, in Brooklyn, one of the most favorably known of our large girls' schools, the *Sanitary Engineer* recently caused a thorough examination to be made of the atmosphere the pupils lived in, and with the most startling results. The amount of impurities present "was found by chemical analysis to be greater than in a crowded theatre or in smoking cars, and three times as great as in the public schools of Boston and Philadelphia." In two class-rooms, the amount of carbonic acid present in the air was twice as great as that in the pit of two of the worst-ventilated London theatres near the close of the performance. That such a state of affairs exists, is not only disgraceful, but in the highest degree alarming to parents and physicians. It is hardly fair to say *ex uno disce omnes*. But every parent sending a girl to any similar school should look into the matter, and every physician called to treat a school-girl — or boy either, for that matter, though their more violent and more frequent outdoor sports to a great extent neutralize such an evil —should inquire carefully into the facts of school-life and habits.

If, following up the exposure of the facts by the *Sanitary Engineer*, the Trustees of Packer Institute do not instantly remedy the evil, the suggestion of the *New York Times*, that it be indicted as a nuisance and closed, would be in order.

That our public-school directors may also learn a lesson from this case, is evident. Many of them are doctors. We call on them to heed the warning. In spite of the comparatively favorable results their buildings show, they are not yet hygienic paradises.

A FABLE.

"More true than strange. We ever may believe
These antique fables."

SOME covetous and unworthy Fowls for a long time observed with jealousy the ease with which a neighboring flock of Ducks secured their daily sustenance from the gullible denizens of a well-stocked Fish-pond, and contrasted it with their own toilsome and early matutinal efforts in pursuit of the elusive Worm. Knowing the not altogether undeserved reputation of the Ducks for want of sagacity, the Fowls resolved, without previously ascertaining the opinion of the anserine community, to amalgamate themselves therewith, and, profiting by the association, craftily to appropriate a portion of their scaly but nutritious aliment. The Ducks, however, with unsuspected acuteness, withdrew the customary skin from before their eyes, and at once perceived the significance of these artful approaches. Having been long accustomed to move in a separate social circle, they resented the informality and cupidity of the attempt, and, availing themselves of their abundant oleaginous secretion to slip from between the claws of their pretended friends, retreated to their native element, from which they reviled the intruders with loud cries of "quack," in derision of the endeavor of the latter to assume their own well-known characteristics. Realizing the uselessness of their venture, and weary of futile dalliance, the disappointed Fowls sought refuge and consolation in the pleasant Fields which they had forsaken, but found to their surprise that their movements had been watched by their more honorable and less avaricious companions, who sternly refused to allow their admission to the most humid and best populated districts of their former Scratching-ground. Driven to search in sandy corners for the sinuous and vermicular Annelid, who became attractive in proportion to his infrequency, the sorely-punished and deeply-sorrowing Fowls comprehended that, had they been content to work as Nature had intended, they would have escaped the contempt of their equals as well as the obloquy of their inferiors.

For a modern illustration of the general principle inculcated by the hoary sage from whose writings we have culled the foregoing gem of wisdom, we respectfully refer the reader to page 478.

THE New York *Medical Record* says, "we are receiving from influential men in every part of the country the heartiest endorsements of the course of the *Record* in its advocacy of freedom in consultations."

We trust that our contemporary will publish the

names of these influential gentlemen, that the profession may know who they are, and that they may have all the reputation which should come from this exhibition of the courage of their convictions; their letters, too, might prove interesting reading.

We are gratified to learn that the Philadelphia Nurse Directory will be open on May 15th. Miss Emily Thomas will be in charge as secretary, the office being at the College of Physicians, N. E. corner 13th and Locust Streets. A circular has been issued to physicians requesting them to send in at once lists of the nurses they can recommend, to induce their nurses to register, and especially to procure all their nurses, after May 15th, through the Directory, all of which we trust will be cheerfully and promptly done.

We learn also that efforts are making to establish similar directories in Washington and in Cincinnati, to which we wish all success.

The practical philanthropy of George Peabody is not only adding to the comforts of those who live in the "Peabody Buildings," but to their length of life. During sixteen years the deaths in these buildings have been at the rate of $16\frac{7}{10}$ per 1000 per annum, while the general death-rate of London has been $23\frac{4}{10}$, and of the crowded districts immediately around the Peabody Buildings, from 30 to 40 per 1000.

SPECIAL ARTICLE.

THE MEDICAL NEWS COMMISSION

ON THE

MANAGEMENT OF VACCINE FARMS AND ON THE PROPAGATION OF BOVINE VIRUS.

(*Continued from p. 441.*)

THE VACCINE FARMS ABOUT NEW YORK.

Subsequently, we examined the farms in New York and Brooklyn. Dr. F. M. Wells, Director of the Vaccine Department of the New York Dispensary, claimed to be a producer of bovine virus, and informed us that his establishment was situated somewhere in the State of Massachusetts, but as it was not solely and exclusively under his own control and management, he did not feel at liberty to invite us to visit it.[1]

We then visited the vaccine farm of the Health Department of the City of New York, which is under the able management of Dr. J. B. Taylor, Inspector of Vaccination. For several years past the department has been propagating bovine virus, and supplying the vaccinating corps with the same free of cost. The surplus virus produced is sold, and the income from this source is deposited in the City treasury to the credit of the department, and may be drawn against under certain restrictions. For further information, we cannot do better than give a few quotations from a circular issued by the department:

"The Board of Health of the Health Department of the City of New York, in accordance with an 'Act to Secure Effective Vaccination in the City of New York, and the Collection of Pure Lymph or Virus' (Chapter 635, Laws of 1874), offers to sell to the profession at large pure bovine vaccine virus, such as this department has used exclusively for several years past, for the vaccination in this city of from 50,000 to 100,000 persons per year."

"Animal crusts, as well as tubes, are so thoroughly unreliable, that this department neither uses them nor offers them for sale."

"From long experience this department has found that the virus from every calf will not give good results; and that the only way to be positively certain that it is reliable is to test the virus from each calf before using it to any extent. That is, one of the physicians, who is exclusively engaged in tenement-house vaccination, vaccinates from ten to twenty babies with each lot of virus on the same day that it is collected, and he examines these vaccinations on the third or fourth day thereafter. If the virus shows the proper degree of activity at that time, it is issued for general use; if not, it is thrown away, and the virus of a previous date is employed."

"According to a regulation made by this department some years since, virus will be supplied to all public charitable institutions in New York City, gratuitously."

The location of the "farm" is at Clifton, N. J., about twelve and a half miles from New York. The stables and other conveniences here are not satisfactory to Dr. Taylor, and the department is now seeking more suitable accommodations. The virus being propagated is a lineal descendent of the Beaugency stock introduced into America by Dr. Martin.

The ages of the animals inoculated range between one month and one year; Dr. Taylor's preference being for sucking calves. The calves are required to be healthy and well fed.

The inoculations are made on the inner surface of the hindquarters of the animal, and in the region of the udder. The calf is placed on its side, the hind legs are separated, and maintained in that position during the operation. Quills are used almost altogether for collecting lymph, and they are charged on both ends. From 200 to 2000 quills (the number depends on the development of the vesicles, and certain unknown peculiarities of the calf) may be charged from one heifer. The collection is almost always made one week from the date of inoculation. Dr. Taylor and his assistant, Dr. Pardee, personally attend to the inoculation and the collection of virus. The virus is preserved by being kept in air-tight glass jars, and at a moderately cool temperature.

Calling next on Dr. William E. Griffiths, of Brooklyn, we were informed that he had been engaged in the business of propagating animal virus since 1874. His stables were said to be located in the country, a short distance from Brooklyn, and as

[1] All the vaccine farms of Massachusetts, of the existence of which we have any knowledge, are located in the vicinity of Boston, and have already been referred to.

no work was being done at that time, they were not visited.

Dr. Griffiths claimed to be propagating an entirely original "stock" of virus, having its origin in a sporadic case of cow-pox which occurred in New York State in 1874. So far as we can learn, the history of this case has never been placed on record. To make known the history of every new "stock" of bovine virus discovered and propagated is certainly a duty that the discoverer or propagator owes to the profession and the cause of science.

For purposes of inoculation, Dr. Griffiths prefers calves from four to eight months old. He makes the insertions on the lower part of the abdomen; generally collects the lymph on the sixth or seventh day after inoculation—sometimes earlier, never later; prefers to collect lymph on quills to any other means; supplies bovine crusts, but does not recommend them very highly.

While in Brooklyn we learned that Drs. Robbins and Lewis were also engaged in the business. We called on Dr. Robbins, and he stated that they were at present producing so little virus that they had nothing to show us.

Subsequently we called upon Dr. Frank P. Foster, one of the oldest, as well as one of the most careful and conscientious, producers of bovine virus. He invited us to visit his laboratory, which is at present located in Greenwich, Connecticut. As to the length of time Dr. Foster has been engaged in the specialty, and the stock of virus he is propagating, Dr. Martin says:[1] "The first physician who followed my example in the enterprise of propagating animal virus was Dr. F. P. Foster, of New York, to whom I gladly furnished supplies of virus and every assistance in my power. Dr. Foster, in his official position in connection with the New York Dispensary, established a "service" of heifer vaccination, which, in that position, and lately as a private enterprise, he has continued with gratifying success."

(To be continued.)

REVIEWS.

CIRCULARS OF INFORMATION OF THE BUREAU OF EDUCATION: DEPARTMENT OF THE INTERIOR. No. 5. 1881.

CAUSES OF DEAFNESS AMONG SCHOOL CHILDREN, AND ITS INFLUENCES ON EDUCATION, WITH REMARKS ON THE INSTRUCTION OF PUPILS WITH IMPAIRED HEARING, AND ON AURAL HYGIENE IN THE SCHOOLS. By SAMUEL SEXTON, M.D., Aural Surgeon to New York Eye and Ear Infirmary, etc. Washington: Government Printing Office, 1881.

IN the letter which forms a preface to this very valuable brochure, the Hon. John Eaton, Commissioner of Education, informs the Hon. Secretary of the Interior, that the causes of deafness among school children are numerous and important enough to justify a special investigation of the subject, and he has therefore requested Dr. Sexton to prepare a paper on the subject. The author, therefore, has collected in the pages of this pamphlet some of the "more practical conclusions regarding the causes of deafness among school children, together with suggestions of a hygienic and prophylactic nature, drawn from his own observations among a large number of pupils in dispensary, hospital, and private practice." Dr. Sexton has performed his task in a most able, explicit, and comprehensive manner, so that the teacher in the public schools and the parents of a pupil may read and understand how important their part is in the prevention of ear disease. On page 12, the author, under the head of "Affections of the Ear from Nervous Sympathy," gives a most lucid description of the manner of taking cold in the head through the nervous sympathy between the nasal cavities, the ears, and throat. Not only is this so plainly and wisely set forth for the guidance of parents and teachers as to render the brochure a valuable guide to them in their respective duties to the children entrusted to them, but also to force us to most heartily recommend this chapter, as well as the entire work in fact, to the careful perusal of all physicians; for we believe that, after carefully reading the paper of Dr. Sexton, the general practitioner will not only understand a great deal more about ear diseases among his little patients, but he will be better fitted to prescribe at least a prophylactic hygiene, if not to conduct a successful course of treatment for the ears.

[1] Transactions of the American Medical Association for 1877.

SOCIETY PROCEEDINGS.

KENTUCKY STATE MEDICAL SOCIETY.

Twenty-seventh Annual Session, held at Louisville, April 5, 6, and 7, 1882.

(Specially reported for THE MEDICAL NEWS.)

THE Twenty-seventh Annual Session of this Society was held in Louisville on April 5, 6, and 7, 1882.

The President, Dr. J. W. HOLLAND, of Louisville, delivered the annual address.

DR. W. O. ROBERTS, of Louisville, made an elaborate report on the

PROGRESS OF SURGERY.

Concerning antiseptics in surgery, he stated that the entire question of the use of these agents is almost as unsettled in professional opinion as it was immediately after their introduction.

In abdominal surgery, Mr. Keith, of Edinburgh, has altogether abandoned the spray and does not rely upon antiseptic precautions so much as upon thorough cleanliness. In the treatment of wounds the drainage-tube retains its claims for favor, and indeed has now a favored and fixed position in surgical methods.

In abdominal or Fallopian pregnancy, the past year has witnessed an entire revolution in reference to the disposition of the placenta after operation. Instead of its removal, many leading surgeons insist that it should be permitted to remain within the cavity, to be detached by natural processes or to become absorbed or encapsuled. Previous to the advent of the antiseptic system in surgery, the operations of nephrotomy and nephrectomy had not been frequently performed. The mortality in these cases was excessive. Now these operations are numerous and the mortality is greatly reduced.

In gunshot wounds of the abdomen, the necessity of interference in order to thoroughly cleanse the cavity is generally recognized, and Dr. J. Marion Sims claims that the old expectant method of managing these cases should be abandoned in favor of the modern method of early interference. Bigelow's operation has continued to grow in favor, and is now advocated and practised by all leading surgeons. Sir Henry Thompson practises this method with his characteristic success, and urges the removal of the entire stone at a single

sitting, and by means of the smallest instrument possible.

A number of cases have been reported in which gangrene has followed amputation where Esmarch's apparatus had been used during the operation, thus necessitating the utmost caution as to the length of time it be allowed to remain upon the limb.

Dr. Wm. H. Wathen, of Louisville, read a paper on

ABDOMINAL SECTION VERSUS CRANIOTOMY.

He claimed that the increased success of abdominal section under the improved methods of modern surgery justifies a timely operation in the interests of both mother and child, and should have the preference over craniotomy. Dr. Wathen made a detailed report of recently compiled statistics of the Cæsarean section. When performed early, he stated that about eighty per cent. of children have been delivered alive. Of nineteen double operations upon eight women in North America, but three deaths are reported; and in one hundred and nineteen operations upon forty-eight women, but eight fatal cases have occurred. He claimed that in future the operation should be regarded as one of election, without special reference to the old statistics compiled from operations performed under hopeless circumstances. He believes that if performed at a sufficiently early time the mortality will be greatly reduced. He compared with the statistics already cited the record of the operation of craniotomy, and expressed his belief that the current improvements in the results of abdominal section are destined to work great changes in the established opinions and practice of the profession in this connection.

Dr. D. W. Yandell, of Louisville, in discussing the paper, expressed the opinion that the data are as yet insufficient to justify any great extension of the accepted field of the Cæsarean section. In the consideration of such statistics, we must bear in mind that fatal cases do not so readily find place as do the successful cases. The speaker illustrated this point by giving some personal experience in collecting statistics on tetanus. When an indiscriminate collection of recorded cases gave a result of thirty per cent. of recoveries, on making personal inqury into all the cases of the reporters, the percentage of recoveries dwindled down to an infinitesimal degree.

The indisposition to report unsuccessful cases is especially prevalent in America. Here medical men rarely report unfavorable cases, while in Europe both fatal and successful cases are reported with more uniformity.

Dr. Wathen, in reply, said that he quite agreed with Dr. Yandell concerning the untrustworthy nature of statistics in general, but in the subject under consideration the statistics have been thoroughly studied and corrected by Dr. R. P. Harris, of Philadelphia, that more than ordinary reliance is justified.

Dr. M. F. Coomes, of Louisville, read a paper on

COLOR-BLINDNESS,

Stating that this defect may be congenital or acquired. Neither the tissues nor humors of the eyes (in so far as can be detected) of the color-blind differ in any respect from those of persons possessing the normal color-sense. Whether this condition results from some alteration or defect in the recipient organ, the retina, or in the central perceptive organ, the brain, has not yet been determined. It is possible that in individuals the perceptive organs relating to color may be altogether wanting, or, if developed, they may become diseased and incapacitated for the discharge of their functions. We do know that in some phases of atrophy of the optic nerve, the chromatic sense becomes impaired; and also that, in certain diseases of the eye, portions of the retina become color-blind. The excessive use of tobacco and alcohol, either one or both, may induce the condition under consideration. The speaker stated that the chromatic sense may be lost and yet the vision of the subject remain so perfect that he can successfully and efficiently discharge the ordinary duties of a railroad employé, where the chromatic sense is not involved.

Among the causes of acquired color-blindness were mentioned severe concussion and shock, and excessive and long-continued strain on the organs of vision. This condition may be either temporary or permanent, when induced by the causes just mentioned. Dr. Coomes then exhibited an instrument, devised by himself, for testing the sight, relative to the chromatic sense. The instrument consists of a cylinder, the sides of which are composed of eight different colored glasses. By an ingenious arrangement this cylinder is made to revolve around a lamp within, so that one color after another is brought before the observer. This instrument is a great improvement over the lantern test, and will be found of great service in testing the chromatic sense. The speaker then illustrated the method of testing the sight as to color-perception, as practised by Prof. Holmgren, and known as Holmgren's method. In conclusion, he said the true method of testing the chromatic sense is by thoroughly utilizing both Holmgren's test, which is by the use of colored worsteds, and the lantern test, as demonstrated by the instrument presented with this paper.

SECOND DAY—APRIL 6TH.

After the transaction of miscellaneous business, Dr. Lunsford P. Yandell, of Louisville, made a report on

THE PROGRESS OF DERMATOLOGY.

Dr. Yandell believes that in proportion to its importance dermatology is more neglected by the general practitioner than any of the specialties. Though nature often records upon the skin the evidences of systemic disease, death is seldom brought about by disease of its tissues. This fact, with the unsatisfactory state of the therapeutics of skin diseases as usually taught and practised, has much to do with the indifference with which this important class of diseases is regarded by the average general practitioner. Dr. Yandell then gave an account of the state of dermatological therapeutics and pathology in the days of John Hunter. He then stated that, after a laborious study of the literature of dermatology in the early years of his practice, he devoted a year to the investigation of these diseases in the European hospitals. When he returned to his practice, after these studies, he found that he was able to do but little practically beyond the cure of those diseases of parasitic origin by means of sulphur and mercury, and the diseases of specific nature with mercury and potash. Besides this, the use of oxide of zinc externally, arsenic internally, and certain remedies acting upon special functions and organs composed the category of trustworthy therapeutic measures. Feeling the necessity of an improved system in the therapy of many cutaneous diseases, he had done something toward developing an improved system of practice in the advance of cutaneous medicine. The line of practice which he has tested with an extensive clinical experience through a number of years he desired to present in more elaborate form than has been heretofore published. By the method of treatment herein enunciated, he had reduced the cure of this class of diseases to a degree of certainty exceedingly satisfactory. Dr. Yandell declared that his views as reported from time to time upon this subject had been misapprehended. It had been reported that he taught a tripod pathology, consisting of malaria, scrofula, and

syphilis. This, he said, by no means indicated his position in this regard. While malaria and scrofula are most potent and widespread factors of disease, he believed that syphilis was much overestimated in this connection. The following propositions will explain the speaker's position:

(1) The causes of disease are few and the manifestations of disease are multiform.

(2) Among potent factors of disease relating to both general and cutaneous affections are malaria, scrofula, the catarrhal condition, the alcoholic, rheumatic, scorbutic, and gouty poisons, the contagious and infectious poisons, imperfect hygiene, and the vegetable and animal parasites.

(3) The local manifestations of disease should not be treated to the exclusion and disregard of the disease itself.

(4) Of the contagious diseases, only syphilis, and perhaps erysipelas, are specifically curable.

(5) In the treatment of skin diseases the general systemic condition and the underlying cause are to be constantly sought, instead of devoting the attention solely to external manifestations.

In conclusion, the speaker declared that more than twenty years of clinical study justified the views herein expressed.

DR. J. M. MATTHEWS, of Louisville, then read an elaborate paper upon

STRICTURE OF THE RECTUM AND ITS TREATMENT BY DIVULSION.

Dr. Matthews said: I beg to speak for a few minutes on the subject of stricture of the rectum and its treatment, and I shall take occasion to refer incidentally to the treatment by *divulsion*. This subject is of more importance than would appear at a glance. Few are aware of the number of cases that present themselves to the surgeon within a year. I do not know of any disease that calls for surgical interference that is of more importance and deserves more careful consideration. It is one of the most harassing afflictions that can affect a patient, besides being one of the most painful; it is, as a rule, when it comes under the care of the surgeon, beyond the hope of any permanent cure. If, then, there is any operation that can be devised to mitigate, if not such to radically cure, this affection, we certainly ought to consider it. Cases of obstinate constipation not unfrequently come under the care of the physician, and in these, not once in a hundred times is a local condition sought in order to explain it. I was glad, however, to hear the expression, a local manifestation of a constitutional disease. Although the consideration of the etiology is too great to begin upon in one discussion, yet in a general way the causes of stricture of the rectum may be enumerated in the order of their frequency as follows, viz., syphilis, cancer, traumatism.

Of course any fall inflicted that may produce ulceration, may cause stricture, when stricture as a natural result would follow, and this character of stricture is amenable to treatment; unfortunately, however, they are the rarest forms of stricture met with. That syphilis is paramount to cancer even I do firmly believe, and really, in my humble judgment, so far as the curability of the affection is concerned, it does not much matter whether it originate from syphilis or from cancer. I believe it is just as nearly incurable in the one case as in the other. It was long ago taught, and is still maintained by some, that syphilitic stricture is the result of deposit by some means of the chancrous pus within the rectum. On the other hand, I believe these strictures are invariably tertiary manifestations of syphilis. Let that be as it may, I am certain of one thing, that frequently the examination reveals a strictured passive tube, extending from an inch above the sphincter to four, six, or eight inches up the rectum, causing constant dribbling away of the passages, constant pain and griping, and in a few short months ending in death from peritonitis or exhaustion. Dr. Matthews then illustrated his remarks by the description of a typical case. Before doing so, however, he remarked that the pain is not a constant feature. He cited the case of a young woman, eighteen years of age, in which the diagnosis is positive, who has not suffered at any time from any pain of any description. He is of the opinion that when the fibrous condition is reached, the iodide of potassium and mercury can do no good. The treatment, therefore, in most cases as they usually appear at a late stage of the disease, can be only palliative, and for this purpose, first, is recommended laxatives; second, dilatation by bougies, to which I very strongly object, for the reason that, to accomplish any good, the dilatation must needs be performed every second day, and such frequency would inevitably lead to ulceration, which would result in more harm than good. A third remedy consists in partial division of the stricture by the knife; the fourth is constitutional treatment, which, as I have stated, I believe inefficacious; the fifth is colotomy, which can only be palliative, and as an operation for palliation merely it is too formidable, and when successful the results are too disgusting. Another operation consists in the complete removal of the affected portion, in contrast with which may be placed another which consists in the complete division of the stricture, which, in my estimation, is the preferable operation. This mitigates the suffering and the symptoms of unfavorable omen. Hectic fever will disappear, the appetite return, and the flesh be regained. Another operation which is now being revived, is that of *divulsion*. I reported a case to this Society four years ago, in which I believe I saved the individual's life by that performance. I might now report a case in which, very recently, I almost caused a patient to lose her life by it, when, in fact, all the good it did might have been accomplished in three seconds by the knife. In my opinion, division of the strictured surface is the safest and the best, because it affords the greatest relief. Forcible divulsion in these cases is attended by great risk and should not be practised. The use of bougies for dilatation is absolutely harmful in the great majority of cases, and under no circumstances should they be used where ulceration of the strictured surface exists.

In discussing the subject, DR. TODD expressed the belief that the importance of the subject, especially to country practitioners, was greatly overestimated on account of the rarity with which such cases are met outside of commercial centres.

DR. VON DONHOFF objected to the sentiments expressed by Dr. Matthews on the subject of the complete extirpation of the rectum, relating a case in which he prepared a subject for that operation, but after placing her under the influence of chloroform, he scraped the rectum with Thomas' serrated spoon. "The case," said he, "will probably come under my care again, when, if everything is favorable, I intend to remove the rectum, and bring down the gut and attach it."

DR. MATTHEWS said he doubted if, in the case related, the rectum could be brought down as Dr. Von Donhoff intended, and again emphasized his disbelief in the efficacy of mercury and the iodides to resolve the condition.

DR. L. P. YANDELL said that, in one or two cases coming under his observation, where the individuals had been the subject of previous antisyphilitic treatment, he had been able to bring about a condition of comparative ease and comfort by dilatation with bougies, supplemented by the treatment which he employs for scrofula.

DR. OCTERLONY called attention to the fact that traumatism may be ranked as a cause of stricture in this situation.

THIRD DAY—APRIL 7TH.

DR. AP. MORGAN VANCE, of Louisville, Ky., reported a case of

DOUBLE OSTEOTOMY (SUPRA-CONDYLOID METHOD), FOR CURE OF GENU-VALGUM,

exhibiting the patient, a girl three and a half years of age. Photographs taken just before operation showed extreme deformity, and comparison with patient's limbs proved the result to be remarkably fine.

The doctor described the procedure as follows:

The patient being chloroformed, the knee was placed on a firm block, well padded, a bistoury was sunk, blade transversely to bone, on outer side just above and back of upper border of patella; without removing this, the osteotome (⅜ inch) was introduced beside it, entering same periosteal nick. The knife being removed, the chisel was driven directly through the bone until it reached the hard shell on inner side; its direction then being changed until the bone was sufficiently weakened to be broken by force. The chisel was left in the bone while the operator did this, using the leg as a lever, with one hand as a fulcrum at point of section, the thigh being steadied by an assistant. Not over two minutes were consumed in severing both bones. No antiseptic precautions were used, except the instruments being taken from a two and a half per cent. solution of carbolic acid.

Very little blood was lost. Absorbent cotton was applied over wounds immediately, and the limbs fixed in double spica of plaster in straight position. No shock, no pain, followed. No medicine was given before or after operation. Pelvic band of dressing was removed on eighth day. A new dressing was applied on eleventh day, union having taken place sufficiently for patient to raise limbs from table; passive flexion being allowed without pain. The wounds were found healed; no signs of pus, the cotton being stained by a few drops of dried blood.

In twenty-five days from operation, the splints were removed, and the child permitted to do as she pleased. Temperature remained about what it was before operation, 99° Fahr., in the mouth, the only elevation being on the evening of fourth day, rising to 99.8° Fahr.

Within a week she walked fairly, going up and down stairs alone.

After this report, DR. VANCE read a paper entitled, "Some Practical Suggestions on the Treatment of Spinal Caries," in which he urged the all-importance of strict attention to details in the treatment of this disease, declaring that failure was oftener due to lack of skill in the application by the surgeon than to the form of apparel used; good results being attainable with any of the recognized forms of apparatus properly applied and attended to by the surgeon himself.

Except in cases of disease near either extremity of the spinal column, before deformity has occurred, a diagnosis was fortunately easily made, as a surgeon was rarely consulted until deformity was evident.

The primary object in the treatment was to secure mechanical rest to the diseased structures by the use of the splint which best attains this end, and which at the same time requires the least attention to keep it fulfilling the indications.

Dr. Vance then discussed the merits and demerits of two principal forms of apparatus: The steel-brace and plastic dressing; objecting to the first on the ground tnat the surgeon was forced to use the work of the instrument maker, whose ideas and rules too often conflicted with the ideas of the surgeon, the result being a "hybrid" brace, which might, or might not, fulfil the indications.

He spoke more fully of the second plan of treatment, saying that, after a large experience of both, he believed the superiority of the plastic dressing to be undeniable. The plaster-jacket, as applied by Dr. Sayre, had, he thought, many defects. It was a splint that could not be used carelessly, especially as many surgeons seemed to think that the only requisite to success was to envelop the child's body in a case, regardless of the locality of disease, or the mechanical indications. This error, he illustrated by reference to cases that had fallen under his observation. The first, a girl, æt. fourteen, *sacro*-lumbar disease, where the lower border of splint did not reach the top of deformity. Several instances of disease in upper *dorsal* region were found with the top of jacket below *kyphos*, without any head support. That he had removed splints, applied by men of the highest authority, which were doing the patients positive injury, instead of giving the required rest, in the comfortable manner described by the advocates of this plan.

Dr. Vance suggested the following points in the use of this jacket:

Never suspend a patient with caries of spine, as it could not possibly do good, and might cause much harm.

Never use *dinner* or respiratory pads, as in a majority of cases such pads rendered the support worse than none.

Never let a plaster jacket remain on a patient without renewal longer than three or four weeks.

Use a head support when the disease is above the sixth or seventh dorsal vertebræ.

Apply the splint with the patient horizontal, after the method of Davy, of London.

Study each case individually, and watch carefully after the brace is applied.

He then spoke of the modifications of the plaster jacket introduced in the past four or five years, which had done away with many of its objectionable features; most notable among which were the removable splints of lighter material. The removable paper splint which he devised and first used in the summer of 1877, with the modifications and improvements since made, he thought was an appliance which nearer filled the demands in treating this disease than any other. After obtaining a cast, a variety of materials can be used in constructing a brace—paper, linen, thin sheep-skin, with glue, or saddle-skirt leather alone, first soaked in hot water, and moulded to the cast. For method of construction of this brace, he referred to his original article in the *New York Medical Record*, June 21, 1879. The only change since made was that the cast of the patient was now taken while in a horizontal position on a hammock.

The idea that there was any extension was a false one. The spine could not be extended unless the head was involved; then, if force sufficient to make extension was used, the apparatus would be unbearable, if not absolutely dangerous to the patient.

That any extension between pelvis and axillæ or thorax could be effected is absurd, as proven by the anatomical relations of the parts. The benefit derived was not from extension, but from compression or splint action, just as rest is produced in the plastic treatment of fractures, and the more equable the compression the better the effect. Therefore, instead of using dinner or respiratory pads, he decreased the antero-posterior diameter of trunk by the use of the hammock, in making the cast. He had never seen any trouble from the tightness of the splint after the first day or two; nor had he ever known hernia resulting from its use.

He advised, in the event of abscess appearing, the continuance of mechanical treatment, while enjoining

rest in a horizontal position. In *paraplegia*, the support to be continued unremittingly.

He referred to introducing vertical pads, so arranged as to be on either side of the spinal column, making a more accurate and comfortable splint, being just thick enough to relieve pressure over the spinous processes. He had found the most difficult part in the treatment was to decide when to discontinue mechanical support. This could only be done by careful experiment, by loosening the splint at night for a week, when, if no bad effect ensued, it to be removed at night, substituting a snug roller for awhile. After this practice has been continued a sufficient time, the splint may be removed and a corset applied, made to fit perfectly the latest cast taken. Constitutional treatment was of the utmost importance, life in the open air being the first condition in importance.

DR. J. A. LARRABAC read a paper on

CEREBRO-SPINAL MENINGITIS,

Detailing some interesting cases, and dwelling at some length on the subject of complications of the disease with pneumonia.

DR. A. H. KELCH, of Louisville, made some observations upon

OBSCURE BRAIN LESIONS.

Laying aside the anatomical grounds upon which the conclusions were based, he maintained that the "choked disk," upon which there is a diversity of opinion as to its relations to diseases of the brain, occurs as the result of those conditions of the brain which interfere with the circulation of the blood through the ophthalmic artery, between its origin, between the nates and testes, and its distribution at the cribriform plate of the sclerotica, that the nervous manifestations caused by adventitious products in the brain will depend entirely upon the seat of such products, and not their character.

The paper was discussed by Drs. L. P. Yandell, J. A. Octerlony, J. W. Holland, and Von Donhoff.

In the afternoon, papers were read by DR. A. M. CARTILEGE, of the Louisville City Hospital, on *a Case of Acute Bromism*, and by Dr. BRANDT on *Tubercular Diarrhœa*.

DR. L. P. YANDELL, after some preliminary remarks, moved that a committee be appointed to express the sentiments of the Society with reference to the recent action of the eighty doctors representing the profession of the State of New York.

While waiting for this committee to form its report, DR. DUDLEY S. REYNOLDS took occasion to say that the quality of glass used in making

SPECTACLE LENSES

Is not what it ought to be, and he exhibited some specimens of lenses which by exposure had become tinted and, to a considerable degree, lost their transparency. The change of color he explained as being due to the adulterating material used in the manufacture of glass. The ordinary glass out of which window-panes are made is called crown glass, after the manner in which it is fused and handled after fusion. As to the constituents, silica, of course, is the important one. The crown glass made by the addition of borate of soda, provided it is handled in such a way as to secure a very thorough incorporation of the ingredients, is known as optical glass. The glasses that are made and sold as articles of commerce are fitted into the frames without any reference to their source. It has long ago been ascertained that the commercial lenses are seldom of the same refracting power on opposite sides of the frames. It has also been ascertained since the phakometer was invented by Snellen that such lenses are almost never symmetrically ground; that their refractory powers are not uniform throughout, thus showing that they have been moulded and afterwards polished. The uniformity with which such glasses are chromatic led to investigations into the mode of manufacture and experiments with different ratios of ingredients entering into their composition. To the present time, however, the secret of the manufacture of achromatic glass lies in the high temperature at which the ingredients are fused and the caution with which the glass is cooled. Dr. Reynold then demonstrated his remarks as to common glasses by means of an improved phakometer, several gentlemen passing up their glasses for examination, but few of which were found symmetrically ground, and none correctly graded.

DR. D. W. YANDELL, of Louisville, exhibited several specimens of ovarian tumors, making some remarks upon recent improvements in the operation of ovariotomy. Having spent some days with Mr. Thomas Keith, in Edinburgh, during the past year, he gave in detail the methods observed in ovariotomy by the great Scotch ovariotomist. The

COMMITTEE ON ETHICS

made the following report:

Whereas, Resolutions have recently been adopted by the State Medical Association of another State subversive of the Code of Ethics of the American Medical Association,

Resolved, That the Kentucky State Medical Society regards the Code of Ethics of the American Medical Association as the best system of ethics for the guidance of honorable medical men now in existence, and that we hereby declare our unfaltering and firm adherence to its principles, and must deprecate any alteration at this time in its honored teachings.

Resolved, That our representatives at the approaching meeting of the American Medical Association be and are hereby instructed to give their votes and influence in favor of unqualified adherence and fidelity to the Code as it now stands.

OFFICERS.

The following were elected for the ensuing year: *President*, Dr. A. D. Price, of Hanodsburg; *Vice-Presidents*, Dr. J. R. Bailey, of Logan County, Dr. T. D. Williams, of Springfield; *Permanent Secretary*, Dr. L. S. McMurtry, of Louisville; *Assistant Secretary*, Dr. S. M. Letcher, of Richmond; *Treasurer*, Dr. Edward Alcorn, of Hustonville; *Librarian*, Dr. L. C. Wagner, of Nicholasville.

Board of Censors.—Dr. C. H. Todd, of Owensboro; Dr. W. M. Fuqua, of Hopkinsville; Dr. W. W. Clearer, of Lebanon.

Committee on Prize Essays.—Drs. F. C. Wilson, L. P. Yandell, Turner Anderson, J. W. Holland, all of Louisville, and Dr. H. K. Pusey, of Garnettsville.

On motion, the society then adjourned, to meet on the first Wednesday in April, 1883.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

PROCEEDINGS OF THE EIGHTY-FOURTH ANNUAL CONVENTION.

Held in Hopkins Hall, of the Johns Hopkins University, Baltimore, April 11–15, 1882.

(Specially reported for THE MEDICAL NEWS.)

(*Concluded from p. 447.*)

APRIL 14TH—FOURTH DAY.

The first order of business, after election of new members, was a paper by Prof. H. NEWELL MARTIN, entitled:

THE INFLUENCE OF VARIATIONS OF ARTERIAL PRESSURE, OF VENOUS PRESSURE, AND OF TEMPERATURE ON THE ISOLATED MAMMALIAN HEART.

The speaker commenced by referring to the communication made by him last year to the Faculty, in which he had shown that it was possible to separate a dog's heart physiologically from all parts of the body of the animal but its lungs, and in this condition keep it alive for hours and available for study.

Since then the method of work has been greatly improved, and is now as follows: A dog having been chloroformed, curarized, or placed under the influence of morphia, is tracheotomized. Then the common carotids are exposed in the neck, ligated, and a canula is placed in the cardiac end of each vessel. Artificial respiration being started, the thorax is opened and both subclavians tied. Next a wide canula is inserted into the aorta just beyond its arch. The coronary arteries are now the only arteries of the systemic circulation which remain open. The brain, spinal cord, trunk, and limbs, are no longer supplied with blood and soon die.

The next steps are to ligate the inferior cava just above the diaphragm, the vena azygos near its junction with the superior cava, and the latter vein below the point where the left innominate enters it. All systemic veins are thus closed, except the coronary veins and the other small twigs from the heart opening into the right auricle itself. The pulmonary circulation is not interfered with at all. Heart and lungs are now the only parts of the body through which any circulation takes place.

A large canula is next tied into the cardiac stump of the superior cava, this canula is connected with a reservoir of (*a*) defibrinated dog's blood; (*b*) the same diluted with some 0.7 per cent. solution of pure sodium chloride in distilled water; or (*c*) with defibrinated calf's blood. The carotid canulas being opened, the blood in the heart and lungs (which would be apt to clot in a prolonged experiment) is washed out and replaced by defibrinated blood supplied from the reservoir connected with the superior cava. While this washing out is taking place, a thermometer is introduced into the left subclavian and its bulb pushed down into the aortic arch, in this position it is firmly tied; it serves to give, subsequently, the temperature of the blood pumped by the left ventricle into the aorta, and hence that of the blood circulating in the coronary arteries of the heart.

The animal with its heart and lungs completely isolated in this manner is now transferred to a warm, moist chamber, kept at a temperature of about 38° C. The canula in the superior cava is connected with a Mariotte's flask filled with warm defibrinated blood (dog's blood diluted with sodium chloride solution or calf's blood), and with this the heart is fed. Alongside this Mariotte's flask is another quite like it, but empty. The wide aortic canula is attached to a long rubber tube which extends through the roof of the moist chamber and whose distal end can be raised or lowered at will. These connections having been made all clamps are removed, and the heart taking blood from the full Mariotte's flask, under a known pressure, pumps it out by the tube connected with the aorta. This tube pours it into a funnel from which it is conducted to the empty Mariotte's flask; as one supply flask empties the other fills, and at the proper time by turning a couple of stop-cocks the first flask is disconnected from the heart and the other used to feed it, while the blood pumped out from the tube in the aorta, is now directed into the flask at first full but now empty. So throughout the experiment, each of the two flasks is made in turn feeding vessel and receiving vessel, for the blood pumped round by the heart. Uniform artificial respiration is maintained by a small water-engine. The carotid canulas are connected with manometers, which record pulse rate and arterial pressure on the paper of a kymograph. Under these conditions, we can vary at will venous pressure, arterial pressure, or temperature, while keeping all other conditions affecting the heart constant. Raising the exit point of the tube in the aorta raises arterial pressure, raising the supplying Mariotte's flask raises the venous pressure, and keeping these two constant we can warm or cool, at will, the blood circulating in the cardiac capillaries, and accurately learn its temperature by the thermometer whose bulb lies in the aortic arch.

Prof. Martin then gave an account of his experiments in three cases: (1) in which aortic pressure was alone varied, venous pressure and temperature being kept constant; (2) in which venous pressure was alone varied, aortic pressure and temperature being kept constant; (3) in which temperature was alone varied, venous and aortic blood pressure being kept constant.

In reference to aortic pressure, he gave a brief sketch of the very inconsistent results obtained by previous workers, most of them well known and justly esteemed as competent and accurate experimenters. Since such honored physiologists as Marey, Ludwig, Haidenhain, Nawrocki, Von Bezold, and Tschirjew had reached absolutely contradictory results as to the influence of variations of arterial pressure upon the rate of beat of the heart, it was clear that some kind of error was introduced in their methods of work. A careful consideration of these methods showed this source of error—all had worked at the problem under conditions in which either the heart was not set free from the influences of extrinsic nerve activities, or under which other things (more especially the temperature of the blood circulating in the coronary system) were altered in addition to arterial pressure. Whenever a change in the pulse rate was found it was attributed solely to the alteration of arterial pressure, all the other concomitants of this alteration being quite neglected. The errors which had thus crept in were illustrated by a critical analysis of the work of Marey and Von Bezold, the speaker referring to the latter as a physiologist whose untimely death had ended a career of the greatest promise for the elucidation of cardiac physiology. Prof. Martin then proceeded to describe his own work on this point. The isolated dog's heart being supplied with blood of constant composition, of a known temperature, and under a constant pressure from a Mariotte's flask, arterial pressure was raised and lowered rapidly between the limits of 40 and 210 millimetres of mercury, by elevating and lowering the level of the opening through which the tube connected with the aorta poured out the blood pumped into it by the left ventricle. No observation was made until the animal had been at least half an hour in the warm chamber, by which time it was certain that brain and spinal cord, deprived of blood for that period, were absolutely dead; and the rigor of the muscles of trunk and limbs, almost always quite marked by that time, proved conclusively that all the body of the animal, except heart and lungs, through which alone blood was flowing, were dead, inert masses; by the ligature of the systemic arteries and veins above described, they were at any rate thrown entirely out of any possible connection with the heart. The experiments, which were illustrated by charts, giving curves which showed arterial pressures and pulse rate during their execution, proved decisively that variations of arterial pressure within those limits had no direct effect whatever upon the rate of beat of the heart. The average carotid pressure in dogs of the size used is 110 to 120 millimetres of mercury, so that the limits above mentioned include, on the one hand, a

pressure very nearly double the normal, and, on the other, one less than half the normal. Certain still higher pressures, produced not merely by raising the exit of the outflow tube, but by narrowing it also, do affect the heart's beat, but the author had not yet had opportunity to fully investigate this part of the question, which has special interest, as the conditions thus produced probably represent very closely those in the heart during a paroxysm of angina pectoris.

Prof. Martin next described his experiments made on the isolated heart exposed to variations of venous pressure, arterial resistance and temperature being kept constant. The pressure under which blood was sent into the right auricle varied from that exerted by a column of defibrinated blood 7 centimetres in height, to that due to a column of blood 38 centimetres in height. These variations were of course produced by raising or lowering the Mariotte flask connected with the right auricle. The results, which were expressed in a chart constructed from tables of pulse rate and venous pressure, showed conclusively that changes in the latter had no direct influence on the rate of the heart-beat. Incidentally the speaker referred to the fact that a series of experiments now being carried on in his laboratory, in which not the pulse-rate, but the *work* done by the isolated heart under varying conditions, was the subject of investigation, had proved that changes in venous pressure had a great influence upon the amount of blood pumped out by the left ventricle in a given time; thus confirming for the mammal what Roy had shown for the frog, that it is pressure in the great veins and right auricle which mainly controls the amount of work done by the heart.

Prof. Martin next proceeded to describe a third series of experiments in which venous pressure and arterial pressure were kept constant, and the temperature of the blood sent through the isolated heart alone was varied. The temperature was measured by the thermometer in the aortic arch—and was accordingly that of the blood flowing through the coronary arteries.

It had been already known that temperature changes very greatly influence the rate of beat of the isolated hearts of cold-blooded animals. From the slower beat of the heart of warm-blooded animals while hibernating, and the quicker pulse of artificially warmed animals, as also the quick pulse of fever, it has been assumed that this also was true of the mammalian heart. But so long as the heart is in physiological connection, through nerves and blood current with other parts of the body, such a belief is merely probably correct; its validity is not proven.

In the case of fever, for example, we now have much reason to believe that the dry skin and high temperature are both the results of nervous disturbances by which the temperature regulating mechanism is thrown out of working order. It might well be, therefore, that the quick pulse also was due to nerve changes extraneous to the heart, such as paralysis of the cardio-inhibitory centre, or excitation of the cardio-accelerator centre, or both. This is moreover a case where experiments on cold-blooded animals are least reliable as bases of argument for mammalian physiology. Deductions made from the heart of the frog, an animal with no heat-regulating mechanism, and never showing true fever, can only be applied with great reservation to the heart of the mammal. It is neverthless of supreme importance to know just what does cause the quick pulse of the febrile state, one of whose dangers is that the overworked heart will give out before the fever has terminated. If the rapid pulse-rate be determined by extrinsic nerve influences, or by poisons produced through abnormal nutritional conditions in various organs and conveyed to the heart in the blood, we cannot *à priori* say that cooling of the patient would slow its rhythm and ease the heart, but if it be proved that in an isolated mammalian heart kept under conditions where all but the temperature of the blood flowing through it is unvaried, hotter blood causes quicker pulse and *vice versa*, we have a valuable indication that cooling of the patient, as by carefully applied baths, may save life in cases of fever where death is threatened by failure of the heart.

Prof. Martin exhibited a chart illustrating by curves the pulse rate and temperature during one experiment. Beginning with blood at 37° C., this was gradually cooled to 30° C., and then slowly warmed again. It was seen that every fall in temperature was accurately accompanied by a slowing of the pulse, and every rise of temperature by a hastening of it.

Further experiment will be needed to decide whether anything else comes in as a factor in producing the febrile pulse rate, but the experiments make it very clear that the chief factor is a direct action upon the heart itself of the hotter blood flowing through its vessels.

The interesting questions—What is the highest temperature and what the lowest at which a dog's heart will still beat, are now under investigation.

In conclusion, Prof. Martin said that the improvements in this method of studying the mammalian heart, since he had laid a short account of it before the Faculty a year since, were largely made by his pupils, and he could hardly tell what part of the method was his and what the device of some one or other of them. In so far as the method had any merits, and it promises very much in the elucidation of points in cardiac physiology, it should go forth to the world as the "Baltimore Method."

DR. WM. M. KEMP read, as a supplement to the *Report of the Section on Sanitary Science*, a paper on the

HISTORY OF THE YELLOW FEVER EPIDEMIC THAT OCCURRED IN NORFOLK AND PORTSMOUTH, VA., IN THE YEAR 1855, IN ITS RELATION TO THE QUESTION OF QUARANTINING.

At this time he was Chairman of the Board of Health in Baltimore. The yellow fever raged with great virulence in both Norfolk and Portsmouth. Almost every town and locality shut its gates on Norfolk, nor would receive those flying from the disease. After careful consideration the Board of Health of Baltimore decided to open its port, and thousands availed themselves of the privilege of leaving Norfolk for Baltimore. The only quarantine rule was that resident physicians should remain on the steamers which plied daily between Norfolk, Portsmouth, and this city, and in case any person was found actually suffering from the disease he should be detained, but all others should be allowed to come freely. It had so happened that in 1853, and again in 1854, a fever had been prevalent in those sections of Baltimore near the "Basin." Early in 1855 the Board of Health had the basin and the water-front generally dredged and cleaned, and had seen that every street and lane throughout the city was cleaned, and kept so. All this was done before the hot weather. Here, said Dr. Kemp, we had the best conditions for an experiment, on a large scale, of the results of keeping open port. Here was a large commercial city in daily communication with another place, where near at hand yellow fever was raging, from which citizens were flying. The result was that, though several of the fugitives were attacked after reaching Baltimore, some of whom died, there was *not a single case of yellow fever originating in Baltimore*. He attributed this largely to the thoroughly good sanitary condition of the city at that time. He further considered that it showed the non-contagiousness of the disease; also that under good sanitary conditions there was no need of any quarantine against it.

DR. JOHN MORRIS remarked that the success of the experiment was due entirely to the fact that was just mentioned. He had been in the South, and considered the rigid quarantine adopted by the towns in Mississippi, Arkansas, etc., during the epidemic of yellow fever, though it seemed cruel, was not so. The sanitary conditions of those towns was such that had yellow fever been brought there it would have spread fearfully. He considered it a transferable disease.

DR. W. CHEW VAN BIBBER completed the report of this section by a report

ON THE DRINKING WATER OF MARYLAND.

He drew attention to the fact that Maryland has an area of 11,124 square miles, and the water area of Chesapeake Bay is 2,835 square miles. Along the northern line of the State, and for an average of forty miles south of it, the country is mountainous and hilly; in the northwestern part of the State, the mountains rise to 3,000 feet. The hills gradually diminish in elevation from 800 to 300 feet above the sea. South of Para's Ridge the hills are small, the land level, and but few feet above tide. The Eastern Shore and the four lower counties of the Western Shore border on salt water, and here the land is flat. Although this section possesses agricultural advantages, ague and fever prevail here to a greater degree than in other parts of the State. As every means taken to discover the cause of this disease in the air have failed, he desired to direct attention to the drinking water used in the two sections of the State, as, perhaps, as has been recently suggested, the cause for the disease may be found here. After briefly referring to some general facts in regard to some of the varieties of drinking water used in Maryland, he said that about half the inhabitants of the State make use of spring or well water, and the other half of stream or river water. The country residents depend upon the former. This water differs from rain water in having percolated through various substances found in the crust of the earth. An examination of the geological map of Maryland shows a great variety of different geological formations in the northern or hilly part of the State. In the southern part the land is homogeneous and of tertiary and post-tertiary formation, and it is here that ague and fever are most common, while in the north they are the exception. How do the waters in the two sections differ as to their sources? In the hills the wells are supplied by subterranean streams and basins; in the lowlands they may have three different sources: (1) Rain sinking into the crust of the earth, forming streams and basins underground; (2) deep streams among the primal formations; (3) percolation and filtration of sea water through the soil from the ocean and bay. At some distance from the sea-shore in alluvial soils there is a water line below the crust of the earth, where, at a certain depth, the water fluctuates with the tide. Cæsar demonstrated this fact in Alexandria; it was shown in digging the foundation of the Safety Deposit building of this city. Brackish water is frequently found present in springs and wells. This source of spring water in the tide-bordered counties must be large. By measurements made by the U. S. Coast Survey, the extent of the tide-water coast line of Maryland, taken by counties, is 2,815 statute miles—nearly equal in length to the average width of the Atlantic Ocean. This great length, and the increasing prevalence of ague and fever as it is approached, naturally suggest cause and effect. Some years ago Mr. Blower, of Bedford, England, suggested that the real source of this disease might be found in potable water. If either air or water alone convey the disease into the body, it is done by a different route and in a different way. If this question be solved, a change in the therapeutics of the disease will follow. In ague and fever the liver and spleen with the blood are the organs mostly changed. In yellow fever the alimentary mucous membrane is primarily affected, and, reasoning from these analogies, is there not a strong probability that the cause of this is swallowed with drinking water? Passing on, he spoke of the large water supply of Baltimore, which will furnish in twenty-four hours five hundred gallons to every person in the city. He then referred to matters of local interest, and spoke of the necessity of the protection by law of streams supplying cities. He reprobated the use of pump water in cities; spoke with approbation of the custom which is coming more and more into vogue of supplying the inhabitants of towns, etc., where pure water cannot be obtained, with pure water in bottles for table, general, or medical uses, at moderate cost. Mineral waters, we know, are less injurious than any alcoholic mixture, and it is to be hoped that plain and carbonized waters will be furnished to young people in cities and towns in grounds more attractive than the German lager-beer gardens. Water can be had in greater variety and at less cost than malt liquors; is more healthful, strengthening, and delicious; and has none of its bad consequences. Nothing will suffer from such a change but the criminal courts, the penitentiaries, and early death.

Several of the other Sections failed to report. In the Section on Anatomy, Physiology, etc., Dr. RANDOLPH WINSLOW had prepared a report on *Some Anomalies in the Osseous and Ligamentous System*, to illustrate which he had brought a number of specimens to exhibit. At his own motion, as it was late, the report was read by title and referred to the Publication Committee.

Dr. CONRAD, Chairman of *Section on Psychology and Medical Jurisprudence*, for the same reason moved that his report be read by title and referred. Adopted.

Dr. CHISOLM, Chairman of the *Section on Ophthalmology and Otology*, reported. After some general remarks, he laid down certain

APHORISMS IN REGARD TO THE TREATMENT OF EYE DISEASES,

which, if general practitioners would follow, great benefit would ensue: (1) Do not blister. In nine cases out of ten it is useless torture. (2) Do not use nitrate of silver. In not one case out of fifty is it beneficial as generally prescribed. (3) Do not use acetate of lead, for fear of leaving lead marks on the cornea. Many will say this is taking away their whole armamentarium. (4) Weak astringents are the best remedies for affections of the mucous surface, combined with absolute cleanliness. (5) Use weak solutions of eserine for corneal affections. (6) Atropia solutions are essential to break up recent iritic adhesions. (7) When in doubt, call on a specialist.

Eserine is beginning to play a very conspicuous part in the cure of a large number of eye diseases, supplanting atropia to a large extent. The strength of its solution is one part in two hundred of water. As it causes contraction of the pupil, it is antidotal to atropia. It is useful in photophobia, by excluding the light; also in commencing presbyopia. A drop of the solution in the eye on rising, will, in these cases, sharpen the vision for reading during the day, though making distant objects misty for a short time. Its great value in eye diseases arises from its physiological action in aid of the circulation through the lymph channels of the eye, keeping up the nice equipoise between secretion within the eyeball and the escape of the used-up material. From this important action we should be prepared to find it efficacious in all cases of increased tension of the eyeball of which glaucoma is the type, and in all cases in which the corneal circulation is involved.

In all corneal affections eserine has taken the place of all other remedies. In cases of acute glaucoma, in which the filtration from the anterior portions of the

eye is interfered with, its local use has in some sense taken the place of an iridectomy by diminishing pressure. It is equally useful in cases of suppurative iritis, or when pus collects in the anterior chamber of the eye, and in purulent ophthalmia. When an operation is necessary for the relief of glaucoma, its mechanical action of spreading the iris over the lens is a decided protection against lens injury. Similarly after the operation for cataract it prevents iritic incarceration and inflammatory complications by pulling the iris away from the edges of the corneal wound. When atropia is used for examination a drop of eserine solution will re-contract the pupil in a few minutes, but it must be used several days to counteract the effect of the stronger solution of atropia. He referred to pilocarpin as a kindred substance, but of weaker power. Its chief use is when administered internally in half grain doses. It produces profuse sweating and becomes a powerful agent for equalizing the circulation, and thus removing local congestions. Acute attacks of glaucoma have been removed by it; also acute attacks of iritis and choroiditis have been cut short by it. No marked depressing effect has ensued from its nightly administration in half grain doses for long periods. He had obtained most brilliant results by its administration in acute retinal, iritic, and sclerotic inflammations. Salicylate of sodium was spoken of as having given excellent results in controlling iritic and scleral inflammations, whether rheumatic or specific. Homatropia possesses all the attributes without the intensity and persistency of action of atropia, thus causing much less inconvenience to patients. Antiseptics have not given to eye operators the advantages which seem to follow their use in the grosser surgery of the body, probably on account of the extreme delicacy and careful manipulation and most guarded cleanliness which are necessitated in their operations. After referring to one or two other remedies, he spoke of the operation of optico-ciliary neurotomy as a substitute for removal of the eyeball after loss of sight from injury, saying that some leading specialists had lost confidence in it, but that his own experience was still in its favor, having obtained excellent and permanent results from it. He spoke of and described plastic operations of the lids, saying that most brilliant results had been obtained from them, and concluded by reference to the hygiene of the eye in the prevention of near-sightedness in children and the examination for color defects in all those who operate on color signals. He showed that near-sightedness was rare as a congenital defect, except when hereditary, and from examinations made in public schools that observers had found it was least frequent in the primary and most frequent in the graduating classes, and also in the most studious. It is much more frequent in towns than in rural districts. It is from the age of eight to fifteen, while the eye coats are soft and yielding, that the antero-posterior diameter gives way by a bulging of the back wall of the eye, which is never remedied. Unhygienic influences in the schools are conducive to a general breaking down of the tissues, and then overwork of the eyes causes the rest of the mischief. If the eyes of all children were examined by competent physicians and glasses adjusted to those who needed them, much suffering in after life would be saved. Then adjourned.

APRIL 15TH.—FIFTH DAY.

Dr. JOHN N. MACKENZIE, read a paper on the

DIPHTHERITIC ULCERATION OF THE AIR PASSAGES IN ITS RELATION TO PULMONARY PHTHISIS,

in which he referred, first, to the great difference of opinion that still prevails among medical authorities as to the correct interpretation of the reciprocal relationship between pulmonary consumption and ulcerative disease of the upper air passages. The existence of true tubercle as one of the chief, if not the chief, etiological factors in the production of what is commonly known as laryngeal phthisis, cannot now be gainsayed, and it now only remains to be decided whether all forms of ulceration of the upper air passage, which are encountered in the course of general tuberculosis, are to be referred directly to the tubercular diathesis as their primary cause, or whether, on the other hand, there are not some which may be regarded as accidental, owing their origin to influences associated with, but not necessarily dependent upon, the tubercular process.

The so-called *aphthous erosion* of the older writers was first depicted in the atlases of Cruveilhier and Albers, and clearly distinguished from tubercular ulceration by Rokitansky, who calls attention to round or oval erosions of the mucous membrane, surrounded by a scarlet border, and covered with a yellowish slough, which are found during the course of pulmonary phthisis in great number in the trachea, and which, after extrusion of the slough, coalesce, and lend to the membrane a sieve-like, worm-eaten appearance. Those which are not tubercular ulcerations are, he says, in greatest number on the side of the trachea corresponding to the lung most diseased. Förster shows that this form of ulceration may so resemble the tubercular that a microscope is needed to differentiate them. He considers most of these so-called *aphthous erosions* really tubercular. Others look upon them as catarrhal, or refer them to follicular ulceration, whilst their tubercular nature is maintained by others.

The writer had adopted the title *diphtherite* of the air passages in uniformity with what the histological study of their development has led him to regard as the correct pathology of these erosions. Dr. Hans Chiari had given him the opportunity of examining the respiratory organs of all patients dead of phthisis in the Rudolph and Jewish Hospitals in Vienna, for a period extending over five months.

The following is a description of this diphtheritic erosion, based upon an analysis of these cases, while the relations between it and the pulmonary phthisis are defined as accurately as possible.

Macroscopical Appearances.—Diphtheritic ulceration appears as small, mostly superficial, irregularly round or oval erosions of the mucous membrane, varying in size from a pin's head to a small pea, and which, separate and distinct, stud the surface of the membrane, or, coalescing, form a large ulcer, which spreads irregularly over the mucous surface. Commencing thus, they assume later a more characteristic appearance; their walls become sharp, regular, and somewhat elevated, and vary from a light reddish shade to a pronounced livid hue. The base presents either a smooth or rough, uneven appearance, generally covered with a yellow slough, or more or less orange-colored exudation. The ulcers are surrounded by a brilliant scarlet border, the mucous membrane between them is slightly swollen, and deeply hyperæmic. These ulcers are always multiple, and are most frequent and abundant in the lower portion of the trachea, generally in the posterior wall, though the whole membrane of the trachea may be covered with and even completely destroyed by them. They are frequent in the bronchi, but were never found in those of the unaffected lung. In most cases they can be traced directly into the cavities themselves. They are less frequent in the larynx and pharynx, selecting in the former chiefly the laryngeal aspect of the epiglottis, the anterior surface of the arytenoid cartilages and inter-arytenoid fold in the latter, chiefly the pyriform sinuses. In the larynx they

approach more closely the type of simple catarrhal ulceration. They are sometimes associated with or near tubercular ulcers, and are more frequent than those in the trachea.

Microscopical Appearances.—The diseased structures were carefully hardened in Müller's fluid and alcohol, and cut into a series of consecutive sections. All were colored with borax carmine and after washing out in absolute alcohol examined in oil of cloves. The sections presented in general the typical appearance of circumscribed diphtheritic inflammation of mucous membrane. Where there were sloughs, the epithelium and upper layers of the mucosa were converted into a finely granular detritus, and the neighboring connective tissue of the mucosa, and to a great extent of the submucosa, was highly infiltrated with lymphoid cells. This infiltration, while invading the tissues between the mucous follicles, did not much involve them in the inflammatory process. In the spots where ulceration had already occurred like conditions were observed in the base and edges of the ulcers and in the surrounding tissues. Here and there the transition stages of these processes could be recognized, viz., the nodules of necrobiotic tissue where the slough had begun to separate, though still adhering closely at points. The first stage of the diphtheritic process seemed to consist in a high grade of small-celled infiltration of the mucous membrane in its upper layer with cloudy swelling of the superimposed epithelium. Distinct miliary tubercles were to be seen neither within or near these nodules. Sometimes, especially in the bronchi, individual nodules coalesced. Thus these ulcerated areas are the result of a circumscribed superficial diphtheritic inflammation of the mucous membrane, *i. e.*, an infiltration of its tissues with so rich and rapid cell proliferation as to end in necrosis and death of the superficial layers.

That they are related to the phthisical process in the lungs is shown by the fact that they are most frequently found in connection with it, and its seems most rational to consider that the foul contents of the lung cavities, lingering in the bronchi and lower trachea, so irritate the mucous membrane that it reacts with diphtheritic inflammation. Dr. Mackenzie then speaks of the theories of Louis and his followers and that of the Heinze and others as to the *rôle* played by the sputa in laryngeal phthisis, and gives his opinion that a reconciliation of these divergent views may be accomplished by referring to the corrosive action of the sputa those ulcerations alone which have been considered. Thus the influence of the sputa is reduced to definite dimensions and the errors of both sides avoided. In favor of this view we have the prediliction of these ulcers for those places which are in constant contact with the sputa—their increase in number as the lungs are approached—also the fact that they may be traced from the bifurcation of the trachea to the division of the bronchial tubes, where they always become visible in that tube only which leads to a cavity—that they are not found in the bronchi of lungs not the seat of cavities or advanced phthisical change—that they are at times present in the œsophagus, stomach, and intestines from swallowing the sputa, and lastly that they are occasionally present in suppurative pneumonia and gangrene of the lung.

These lesions are pathologically distinct from the tubercular ulcer, though possessing some of its external characteristics. Although they owe their existence to the disintegration of the lung, the following are the reasons why they should not be considered specific tubercular products: (1) They differ histologically in no respect from the circumscribed diphtheritic ulceration occurring without tuberculosis. (2) That identical lesions histologically are found, though less frequently and abundantly in the air passages, and particularly in the trachea, as a secondary complication in diseases other than pulmonary phthisis, *e. g.*, circumscribed gangrene of the lung, or as a result of perforation into the trachea of broken-down sloughing bronchial glands. (3) That on other mucous membranes under similar conditions, such as a neighboring long-standing gangrenous process, or the constant passage of an ichorous discharge, ulceration in every way identical is found.

The great number of the ulcers, their absence in simple catarrh of the air passages, acute or chronic, their characteristic macroscopic and microscopic appearances are sufficient to exclude the idea of their catarrhal nature, and strongly militate against the hypothesis that would relegate them to the simple inflammatory condition of the mucous membrane, which often ushers in or accompanies the phthisical process in the air passages.

Dr. I. E. ATKINSON read a paper by title, on "*Simple Chancre Affecting the Preputial Margin.*" It was referred to the Publication Committee.

DR. WM. LEE, read a paper entitled,

RECURRENT HEADACHES IN CHILDREN.

It was intended to be a suggestive paper, calling attention to the frequency of the complaint and to its usual signs and symptoms. Special reference was made to the influence of heredity, hysteria, the rheumatic, gouty, and syphilitic diatheses. Headaches generally accompany great irritability of the nervous system. There is during the attack great listlessness in the expression of the face, and the muscles generally have a flabby doughy feel. The therapeutics of these attacks are very imperfect except in those of syphilitic origin.

MISCELLANEOUS BUSINESS.

The Faculty then listened to the report of its committees; among others, to that on the establishment of a Nurses' Directory, which reported favorably; to the Library Committee, and to the special committee on the Library Building. The suggestions in these reports were deferred to a special meeting to be held on the 2d of May.

It was announced that Dr. Toner, of Washington, had offered his valuable library to the Faculty, on condition, that they erect a fire-proof building, in a certain style, for the reception of it. As the Faculty could not yet see its way to making a definite promise to this effect, a vote of thanks was given to Dr. Toner, and his offer declined.

Dr. Conrad introduced a resolution that the Faculty appoint a committee to consider the best steps to be taken to establish a proper State oversight of the insane and protect them from abuses, and sane persons from unjust confinement in asylums, etc., the committee to report next year. Dr. Conrad wished it understood that he did not know of any case in Maryland of a wrong use of power by those in charge of these asylums, but such protection was only just, and he thought the profession should take the initiative. Further consideration of this was deferred to the next special meeting.

The title of the Section on Ophthalmology and Otology was enlarged to include Laryngology.

A vote of thanks was passed to Dr. Archer for the presentation of books and antiquarian articles of interest to the library. A similar vote was passed to Dr. W. G. Regester for the impartial and thorough manner with which he has for several years discharged his duty in his office of State Vaccine Agent, from which he has recently resigned. Votes of thanks were passed to the president, trustees, and professors of the Johns Hopkins University, for the use of Hopkins Hall; also to the retiring President of the Faculty for the able and impartial manner in which he had presided over the meetings.

The new officers elected were: President, Dr. William M. Kemp; Vice-Presidents, Drs. Richard McSherry and T. S. Latimer; Secretary, Dr. W. G. Regester; Assistant Secretary, Dr. G. Lane Tanneyhill; Treasurer, Dr. Judson Gilman.

The President, after announcing the names of the standing committees and the appointments on the various sections, and congratulating the Faculty on the success of the present convention, put the motion for adjournment, which was carried. The annual meeting of the Faculty will begin in the future on the fourth, instead of the second, Tuesday in April.

NEW YORK COUNTY MEDICAL SOCIETY.

Stated Meeting, April 24, 1882.

After the usual preliminary reports, the paper of the evening was read by Dr. A. D. ROCKWELL, and was entitled, *Observations on Hemiplegia, based on Eighty-one Recorded Cases; with Special Reference to Cerebral Localization.*

He remarked that while the symptoms and grouping of symptoms vary very widely in many cases of hemiplegia because of the special part or parts of the brain affected, yet in hemiplegia, as in other pathological conditions, there was a common and readily recognized type of the disease.

A case illustrating the symptoms of a typical hemiplegia was then related. The regional or anatomical diagnosis was effusion of moderate quantity into and around the corpus striatum. In addition to this case, Dr. Rockwell had a sufficiently detailed record of 18 others, the symptoms of which were enough in accord with the one related as to justify a similar diagnosis as to the seat of the lesion.

In 13 of these 19 cases, the paralysis was on the right side, and in the remaining 6 upon the left side. Of these 13 cases involving lesions of the left hemisphere, 9 were in greater or less degree amnesic or aphasic, while of the 6 cases involving the right hemisphere, not one was thus complicated. In analyzing all his cases, 81 in number, with reference to the side affected, he found that right hemiplegia preponderated in about the same proportion as in the 19 typical cases (lesions in or about the corpus striatum) just referred to. Right hemiplegia occurred 49 times, left hemiplegia 30 times, and double hemiplegia twice. While it is evident that persistent hemiplegia with aphasic symptoms depends upon left cerebral lesion, as a matter of fact, the aphasia not infrequently almost entirely disappears, while yet the paralysis of motion remains. This could not well be explained if it were true, as M. Broca long ago declared, that the faculty of articulate language was located in the left frontal convolution. On the contrary, the experiments of Fritsch, Hitzig, and Ferrier show that in every essential point the brain is symmetrical. It is rational to believe, therefore, that the reason why loss of the co-ordinating power of speech is so universally associated with left cerebral lesion is, that as most people are right-handed, so are they left-brained, and in lesions of the left hemisphere with aphasia, the memory of words is *not* totally destroyed; the victim is without the power of articulate speech because the right side of the brim has been so little exercised as to be incapable of at once acting alone. When aphasic symptoms disappear, therefore, it may be said that the right side of the brain becomes educated in the same way that the left hand is educated when its fellow is disabled. As illustrating the occasional value of treatment in cases when nature has failed to be of service, Dr. Rockwell referred to the case of a lawyer, who, in 1873, was prostrated by hemiplegia associated with aphasia. In a short time the patient regained in great measure the power of motion, but for three months there was absolutely no improvement in the power of speech. Upon submitting him to the process of cerebral galvanization, improvement began almost immediately, and in a few weeks he could converse with comparative freedom. Acute sloughing, on the contrary, is generally associated with damage to the *right* hemisphere; is, as a rule, indicative of speedy dissolution, and is believed to depend on trophic rather than on vaso-motor changes. Of the two cases of acute sloughing that he had seen, both were associated with lesions of the right hemisphere, and were speedily fatal. A condition of increased heat and swelling of the paralyzed limb was described, which continues an indefinite length of time. Out of the eighty-one cases, there were five that presented these symptoms. In these cases it was evident that the lesion, whatever or wherever it was, exerted an inhibitory influence, either directly or reflexly, on the vaso-motor centre. The pons varolii is regarded as especially a regulative centre for vaso-motor nerves, but the symptoms were manifestly not those that follow damage to that sensitive body. It was hardly possible to locate the lesion in the crus cerebri, as in such a case there would probably be a concurrent paralysis of the third nerve.

Injuries to the optic thalamus, however, owing to its close proximity to the principal vaso-motor centre, have been so frequently found associated with these symptoms of increased temperature and swelling that, in the cases described, this part was believed to be seriously involved.

Of two cases where the lesion was supposed to involve both the pons varolii and the crus cerebri, the history of one was given.

The attack occurred suddenly in the person of a working man, aged fifty-five. The character of the paralysis relating to the extremities, the face, and the tongue, was of the usual character.

In addition, there was some difficulty of deglutition, with painful hyperæsthesia of the paralyzed side of the face, due probably to injury to the fifth nerve. The patient also became exceedingly emotional. The symptoms pointed undoubtedly to lesion of the pons in its upper lateral portion. The symptom that indicated damage to the crus cerebri, was paralysis of the third nerve, on the same side as the brain lesion. The results of this condition are well known, being ptosis of the eyelid, dilatation of the pupil, and external squint. This last symptom is due to the fact that all the muscles of the eyeball become paralyzed, except the external rectus and superior oblique. The temperature of the paralyzed limbs was decidedly higher than normal, as has been frequently observed in demonstrated cases of damage to the pons varolii. A case was also related of double hemiplegia, the lesion being located in the central part of the pons. A rare symptom termed "pulsus deferens" was noted in this case. The pulse in the right radial artery would repeatedly disappear and reappear, and was suggestive as indicating injury to the vaso-motor nerve tracts, and consequent interference with the contractile power of the arterial walls. After considering lesions of the cortical substance of the brain and irregular forms of anæsthesia, Dr. Rockwell related an interesting case of unilateral hyperæsthesia, associated with hemiplegia, which he saw with Dr. J. W. Greene. The patient was a hard drinker. His right side became suddenly and completely paralyzed, followed by such an acutely sensitive condition of the limbs, that the slightest touch caused great pain. Taking into consideration the completeness of the paralysis and the severity of the other symptoms, the case seemed about as unpromising as possible; yet in a few months he had entirely recovered. The treatment was almost entirely electrical, by the methods of

general faradization and central galvanization. The cause of this symptom is not positively known, but it has been suggested that as the destruction of one of the sense-centres for common sensibility results in hemi-anæsthesia, so a neighboring lesion, resulting merely in a reflex irritation of this sense-centre, may be followed by hemi-hyperæsthesia.

In the cases that were considered, no attempt was made to discriminate between the two principal pathological conditions, viz., rupture or occlusion of vessels, the differential diagnosis in this respect being not so important as the regional diagnosis. Especial attention was, however, called to a third class of cases, in which the cause is a spasm of the vessels. In one case, the attacks were intermittent, resulting in partial hemiplegia, which would soon pass away. These attacks extended over several months, and finally resulted in the death of the patient. A *post-mortem* revealed various abnormal conditions of the brain, but no rupture and no occlusion.

A point of practical interest in the consideration of this case lies in the fact, that applications of electricity for the purpose of affecting the vaso-motor system resulted in an immediate cessation of these attacks. This cessation continued from the 25th of September to the 4th of December, when a more violent attack carried the patient off. The paper closed with some references to the damage occasionally sustained by the nerves of special sense. The extent of the optic tract and its varied blood-supply render sight more liable to injury, in forms of intra-cranial disease, than the sense of hearing. Various local lesions, resulting not only in hemiplegia, but in total or partial blindness, might be enumerated. Especial attention was called to an occasional loss of this function, which is only temporary, and probably caused by the reflex effects of injuries to brain structure in close proximity to the corpora quadrigemina. The case bearing on this point to which attention was called, occurred in a man in middle life, who had occasionally suffered from epileptiform seizures. An attack two months previously resulted in incomplete paralysis of one side of the body, and also in a condition of total blindness. An induction current as powerful as could be well borne was applied simultaneously to both eyes of the patient, and was followed by an immediate restoration of sight. This result, surprising as it seemed at the time, and incredible as it may appear to those who have given the subject no thought, or who have never heard of cases analogous, is not so astonishing as it would seem, neither indicating any mysterious power nor novel therapeutic action of the current. Judging from reports of other cases, and the probability of the purely functional and indirect cause of the blindness, recovery would probably have taken place spontaneously, and was only hastened by the reflex stimulation of the electricity. The length of time during which sight was lost in this instance would seem to be exceedingly rare, for among a number of cases mentioned by Bastian, he refers to one where the blindness persisted for six weeks. He speaks of the loss of function as prolonged.

If we attempt to explain the interesting phenomena of the sudden and total loss of sight, and its sudden recovery, on the theory of indirect or reflex influences, some might suggest that, in the light of a better knowledge of cerebral physiology and pathology, these views are not received with the same favor as formerly. It must not be forgotten, however, that morbid anatomy is as yet far from being co-extensive with pathology. The most profound derangements of the functional activity of the nerve-centres may exist, and yet by none of our advanced methods of investigation has it been possible to discover any appreciable lesion; and until we have more accurate knowledge in this direction, the theory of reflex influences, on which we must fall back for explanation, although beyond the sphere of verification, is, at all events, plausible, and, to a certain extent, rational.

DR. A. H. SMITH, President of the Therapeutical Society, read a report on *Calcium Sulphide as an Antisuppurative.*

Society adjourned.

CORRESPONDENCE.

NITRO-GLYCERINE AS A REMEDY.

To the Editor of THE MEDICAL NEWS:

IN an article in the current number of THE NEWS it is stated that nitro-glycerine is a new remedy. I desire to call attention to the fact that the drug was used many years ago, and articles detailing its physiological effects were written as far back as 1855.

I wish, now, to claim priority in suggesting its use in the treatment of various nervous diseases, including epilepsy and migraine, in appreciable doses. Dr. A. J. Minor and I conducted a series of experiments in 1875, which were subsequently published.[1] I afterwards suggested its use in epilepsy,[2] and see no reason to change the views I then enunciated, viz., that it was an excellent substitute for amyl nitrite, that it was serviceable as an abortant in epilepsy, and was of great benefit in sick headaches. I should not make this claim of priority were it not that a recent article has appeared upon the treatment of epilepsy in which no mention is made of my original discoveries. I presented, in 1876, the formula for the alcoholic solution which you speak of in your editorial, and which has since been employed.

After using the drug freely for eight years, I can say that I have never seen a case of poisoning, nor any grave or lasting nervous disturbance from its administration in the ordinary doses. In my own experiments, I, upon one occasion, took one drop of pure nitro-glycerine, and a number of alarming symptoms were developed. The initial disturbance was a feeling of indescribable head-fulness, a galloping, full pulse, an impending confusion, which deepened into semi-consciousness and temporary blindness. I was intensely sensitive to noises, and the laying of a friend's hand upon my shoulder caused me to start violently forward. This condition passed off in a few minutes after a solution of bromide of sodium had been taken, and was followed by protracted vomiting, which was almost of a cerebral character. For several days I suffered from after-effect, such as attacks of dizziness, transient blindness, and great weakness of the lower extremities.

The drug may best be given in the form of the saturated tablets prepared for me by Caswell & Hazard, of this city, each tablet containing ♏½–♏j. of a ten-per-cent. solution of nitro-glycerine in absolute alcohol.

Yours, truly.

ALLAN MCLANE HAMILTON.

April 24, 1882.
43 E. THIRTY-THIRD ST., NEW YORK.

NEWS ITEMS.

BROOKLYN.

(From our Special Correspondent.)

THE PLUMBING LAW.—The Common Council of this city has appropriated the sum of $2,500 to enable the

[1] American Psychological Journal, Feb. 1876.
[2] Chicago Med. Journal and Examiner, Dec. 1876; and Nervous Diseases, their Description and Treatment, first edition, 1878, p. 413.

Department of Health to enforce the plumbing law during the current year. The law itself sets apart no money for the execution of its provisions, which have reference chiefly to the inspection of new buildings; and the city fathers are to be congratulated upon having had the courage and wisdom to give that sum of money for the purpose named in the face of no little clamor against the law on the part of those who are interested to retain the old fashion of cheap, unsanitary and unregulated plumbing of dwellings.

VIENNA.

(From our Special Correspondent.)

NOTES FROM THE CLINIC OF DR. HANS HEBRA, UNIVERSITATS DOCENT.—*Treatment of Scabies.*—Scabies is a very important skin affection, in Europe generally, and Vienna particularly. Army surgeons in Austria and Prussia especially meet the disease. As the Austrian soldiers are regularly inspected every two weeks, little time is allowed for the development of an extensive artificial eczema. The *quick treatment* is, therefore, available for them. The individual afflicted with scabies is sent to a hospital, is washed with soft soap, and then painted for two or three minutes with Vlemmick's solution. He remains in a bath of tepid water one hour, and rejoins his regiment two or three hours later. As before said, this treatment can only be employed when then are few excoriations.

The formula for Vlemmick's solution is:

℞. Calc. Vir., ... 1 libr.
Flor. Sulf., ... 2 "
Aq. Font., ... 24 "
Coque ad remanent 20 libr., et filtra.

Vlemmick is Surgeon-General of the Belgian Army.

The *slow treatment* observed in hospital and private practice, where there are usually many excoriations, an extensive artificial eczema, consists in the employment of Wilkinson's ointment. The formula is:

℞. Flor. Sulf., ... 2 parts.
Olei. Cadine, ... 2 "
Pulv. Cnt. Alb., ... 1 "
Aung. Porc.,
Sapon. Virid. āā, . . . 4 "

Two thorough frictions with this ointment, at an interval of twelve hours, is usually sufficient to effect a perfect cure. In the *Prussian Army* fifty grains balsam of Peru are allowed to every case of scabies.

Styrax liquidus is effective, and much employed, and may be substituted for beech tar in Wilkinson's ointment.

BACILLUS TUBERCULOSIS.—Robert Koch's assertion that tuberculosis is a bacteria disease, resting upon his succeeding in the production of tubercle-bacillii, which still in the 6-8 "Re-incultur," were capable of inoculation, has provoked much discussion, harsh criticism, and ridicule in Vienna.

THE MEDICAL EDUCATION OF WOMEN AT HARVARD.—At a stated meeting of the Board of Overseers of Harvard University, held on April 12, the committee on the medical education of women then presented through its chairman, Colonel Theodore Lyman, a report which made no recommendations on the part of the committee, but presented the opinion of the Medical Faculty of the University upon the advisability of permitting women to enter the medical school. The Faculty, while making no opposition to the medical education of women in general, decidedly oppose it in the Harvard Medical School. The school, they say, was founded for the medical education of men, and has been endowed and sustained for that purpose—a purpose which would be seriously perverted if the school were changed into an institution for the education of both sexes alike. The Faculty has been trying to raise the standard of medical education, and has already made it higher than anywhere else in America. The examinations are harder, and the course of instruction is more complete and thorough, and more distinctly graded than in any other university in the country. Beginning with anatomy, the course ends in the third and fourth years with more abstruse subjects. The fourth year is still voluntary, but an effort is being made to extend the regular course. The school and the Faculty have now all they can do, and are doing all that the community can ask of them; and all that they are doing is directly in the line of raising the standard of medical education, and educating students to be good physicians. The addition of a mass of women to the students would probably result either in seriously deranging the machinery of the school, or the standard of the school and of medical education would have to be lowered to the capacity of the many. The closing portion of the report of the Faculty consisted of the following votes, which they adopted in several recent meetings:

Voted, That if the President and Fellows have a desire to be informed of the present views of the Medical Faculty upon the question of female medical education in the University, the latter would respectfully state that, in their opinion, it is not advisable that the President and Fellows should open a course of medical study to women under the auspices of the University.

Voted, That the fact that the Medical Faculty is strongly adverse to undertaking female medical education would be, in their belief, of itself fatal to the success of an attempt in that direct.

Voted, That female medical education cannot be undertaken in the Medical School without a serious risk of detriment to the interests of the medical education now given to men.

In the above report eighteen of the Medical Faculty concurred, and from it two dissented. The report was made to the committee, of which Colonel Lyman was chairman, in a conference between that committee and a committee of the Faculty on April 3. It was thought best by Colonel Lyman and his colleagues, Mr. Moorfield Storey and Dr. R. H. Hodges, to present these facts to the overseers without comment. The report of the committee was accepted. In connection with it Colonel Lyman read a letter from the Faculty, stating their views with reference to the subject of the report, and also saying that, in their opinion, they ought to be consulted by the Corporation in all medical matters. The letter was laid on the table. Mr. Francis E. Parker then offered the following:

Voted, That in the opinion of this Board it is not advisable for the University to give any assurance, or hold out any encouragement, that it will undertake the medical education of women of Harvard College in the Medical School.

A somewhat prolonged and earnest debate, in which most of the gentlemen present took some part, took place on the subject of the motion, and it was finally adopted by a vote of twelve to eleven in the negative.

The final decision upon the question of admitting women to the Medical School does not rest with the Board of Overseers, but their advice in the matter was asked by the Corporation with which rests the decision. Of the seven persons who form the Corporation, only two are thought to favor the medical education of women at Harvard.

THE PUBLIC HEALTH.—For the *week ending April 15*, the following additional record of deaths is presented: From *small-pox* there were 6 deaths reported

in Hudson County, N. J.; 17 in New Orleans; 5 in Pittsburg; 2 new cases in the District of Columbia; and 1 death in Omaha, Neb. From *cerebro-spinal meningitis*, 9 deaths in Buffalo; 4 in Pittsburg; 2 in Chicago; and 1 each in Hudson County, N. J., the District of Columbia, and Detroit. From *diphtheria*, 3 deaths each in Hudson County, N. J., and Pittsburg; and 2 deaths each in the District of Columbia and Buffalo. *Typhoid fever* caused three deaths in Chicago; and 2 each in the District of Columbia, Buffalo, and New Orleans. There were 10 deaths from *scarlet fever* in Hudson County, N. J., an increase over the preceding two weeks; 7 in Buffalo; 3 in Detroit; and 2 in the District of Columbia. From *measles* there were 6 deaths in Pittsburg; 4 in Hudson County, N. J.; 2 in Buffalo; and 1 each in Detroit and Vicksburg, The number of deaths from *puerperal* diseases in Hudson County, N. J., amounted to 11, the greatest number reported during the past eight weeks.

Consumption caused 15 deaths each in New Orleans, Hudson County, N. J., and the District of Columbia; 7 in Buffalo; 3 each in Pittsburgh, Salt Lake City, and Vicksburg; and 2 each in Detroit and Omaha, Neb. *Pneumonia* caused 18 deaths in Hudson County, N. J.; 17 in Buffalo; 9 in the District of Columbia; 6 in New Orleans; 4 in Detroit; and 1 each in Davenport, Augusta, and Vicksburg,

For the *week ending April 22*, the returns of deaths from prominent causes were as follows:

Small-pox.—This disease, which has been so generally prevalent throughout the country, no longer assumes, with few exceptions, a prominent place in the weekly mortuary records. In the Atlantic cities there are but very few deaths from this disease. The eastern cities are almost entirely exempt. In the far south, New Orleans seems to be only city where the disease prevails to any considerable extent, and this experience has been a recent one. But few deaths are reported from the far west and the Pacific coast. In Chicago and, to a less extent, in Pittsburg and Allegheny City, the disease is quite fatal. Cincinnati is at present the central locality of prevalence of small-pox. With slight variation the mortality has been steadily increasing until the number of deaths has reached over 50 per week. With these prominent exceptions, the disease seems to be on the wane, and we may look for a still further reduction in the mortality as the warm season advances. The following is the summary of deaths for the week so far as received: New York City, 8; Philadelphis, 5; Pittsburg 6, and 29 new cases reported; Cincinnati, 51; Memphis, 2; and Wilmington, Del., and Milwaukee, each 1.

Cerebro-spinal Meningitis.—This disease is nowhere epidemic. But few cases are reported from this cause during the week.

Croup.—This disease is not especially prominent in any place. The deaths were 15 in New York City; 9 in Philadelphia; 2 each in Boston, Cincinnati, and Detroit; and 1 each in Providence, New Haven, and Milwaukee.

Diphtheria.—There has been no very marked variation in the number of deaths reported from this disease in any one place for a number of weeks past. The mortality in New York City, Boston, and Brooklyn, still maintains a high rate per cent. The deaths were as follows: New York City, 35; Philadelphia, 12; Boston, 8; and Detroit, 2.

Scarlet Fever.—Scarlet fever continues prevalent in New York City, Brooklyn, and Hudson Co., N. J. Elsewhere there is reported no excessive mortality from this cause. The deaths for the week, so far as reported, were as follows: New York City, 76; Philadelphia, 6; Boston, 1; Cincinnati and Milwaukee each 2; and Detroit, 1.

Typhoid and Typhus Fevers.—There were 5 deaths from typhoid fever in New York City; 19 in Philadelphia; 3 each in Boston and Wilmington, Del.; 2 each in Cincinnati, Milwaukee, and Portland; and 1 each in New Haven, Indianapolis, Davenport, and Jacksonville. In Philadelphia this disease has prevailed to a considerable extent all winter, and the mortality still continues unusually great. Three deaths occured from typhus in New York City.

Malarial Fever.—There is nothing special to report under this head for the past week.

Measles and Whooping-cough.—A remarkable falling off in the deaths from measles is noticed in New York City, where the number was only 8, as compared with 29 and 33 in the two preceding weeks. Elsewhere there are only few deaths reported from this disease. The only city in which whooping-cough prevails to any considerable extent is New York. The deaths for the week were 20, against 13 and 18 for the two preceding weeks.

Consumption and Pneumonia.—The gradual decrease in the deaths from both of these diseases noted in the early part of the month, and which is characteristic of this season of the year, has been interrupted, and in a number of instances during the past week the mortality has exhibited a decided increase. This increase in mortality happening subsequent to, and coincident with, an unusually prolonged spell of cold and damp weather, would seem to indicate the relationship of cause and effect. From consumption there were 116 deaths in New York City, an unusually high mortality, even in the most unfavorable season. There were 62 deaths in Philadelphia, against 48 in the preceding week; 29 in Boston; 15 in Cincinnati; 7 in Providence; 8 in New Haven; 11 in Louisville; 6 in Detroit; 5 in Portland, and 6 in Milwaukee. From pneumonia there were 97 deaths in New York City; 43 in Philadelphia; 28 in Boston; 7 each in Cincinnati and Detroit; 4 in Providence; 5 in New Haven, and 3 in Louisville.

HEALTH IN MICHIGAN.—For the week ending April 15, 1882, the health reports indicate that remittent fever, dysentery, cholera morbus, membranous croup, and puerperal fever have increased, and that inflammation of bowels has decreased in area of prevalence. Small-pox was reported present during the week ending April 15, and since, at three places as follows: At Flint (one case), Manistee (four cases among the Poles), and at Plainwall, Allegan County (one case), April 15, 1882.

ALABAMA MEDICAL ASSOCIATION.—The annual meeting of the Medical Association of Alabama was held in Mobile, Ala., on April 12, 13, and 14, J. B. Gaston, M.D., of Montgomery, President, in the chair.

The first day's proceedings were occupied with the address of welcome by Dr. W. H. Sanders, and the address of the President, Dr. J. B. Gaston, of Montgomery. Dr. Gaston's address dealt principally with the present ineffective supervision of the sanitary conditions of public institutions by the State Board of Health, and suggested that the general assembly be memorialized to give the Medical Association joint supervisory functions with the various county boards of health,

On April 13 papers were read by Dr. Godfrey, of Somerville, on Rabies in Alabama; Dr. Heustis, of Mobile, on Recent Progress in Surgery, and by Dr. Jordan, of Birmingham, on Epidemic Typhoid Fever.

The following officers were elected for the ensuing year: *President*, Clifford D. Parke, of Selma; *Vice-Presidents*, John M. Godfrey, of Sumterville; Daniel O. Hopping, of Letohatchee; *Secretary*, Thomas A. Means, Montgomery; *Treasurer*, Walter C. Jackson;

Board of Censors, for 5 years, J. S. Weatherly, Montgomery; John R. Hoffman, Athens.

MEDICAL COLLEGE COMMENCEMENTS.—The Forty-eighth Annual Commencement of the Medical Department of the University of Louisiana was held on March 29, the degree of Doctor of Medicine was conferred on 56 candidates.

The Missouri Medical College graduated a class of 125 at its Annual Commencement.

The St. Louis Medical College conferred degrees of Doctor of Medicine on 29 candidates at its commencement in March.

At the Annual Commencement of McGill University, Montreal, held on the 31st of March, the degree of Doctor of Medicine was granted to 27 graduates.

The Eleventh Medical Convocation for conferring degrees in medicine by the University of Bishop's College, Montreal, was held on the 5th of April, 9 degrees of C.M., M.D., being conferred.

At the Commencement of the Rush Medical College honorary degrees were conferred on J. Milner Fothergill, of London, and Giovanni Paladino, of Naples.

MÜTTER LECTURES—COLLEGE OF PHYSICIANS OF PHILADELPHIA.—Dr. E. O. Shakespeare has begun a course of ten Mütter Lectures on "Contributions to the Histology of Inflammation." Three of the lectures were delivered this week. The remaining lectures will be delivered to-night and on May 2, 5, 6, 8, 9, and 12. The lectures are free to members of the profession.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At the meeting of the Royal College of Physicians of London held April 3, Sir Wm. Jenner, the retiring President, was unanimously re-elected to the presidency.

THE PARIS FACULTY.—Dr. Cornil has been elected to the Chair of Pathological Anatomy in the Faculté de Médecine of Paris, in place of Prof. Charcot. Prof. Cornil has consequently resigned his post of Deputy for Allier in the Chamber of Deputies.

MURDER OF AN ASYLUM PHYSICIAN.—On Friday morning, January 6, DR. EDWARD A. ADAMS, first Assistant Physician at the State Asylum for the Insane, Kalamazoo, Mich., was fatally stabbed by a patient in that institution.

LOUISIANA STATE MEDICAL SOCIETY.—Owing to the disastrous floods which have caused so much destruction in Louisiana, the meeting of the Louisiana State Medical Society, which was to have been held on March 29, has been postponed indefinitely.

THE ACADÉMIE DES SCIENCES.—The Section of Medicine and Surgery of the French Académie des Sciences presented the following list of names as nominees for the place made vacant by the death of Bouillaud: 1st, M. Davaine; 2d, M. Charcot; 3d and *ex aequo*, MM. Paul Bert and Brown-Séquard; 4th, M. Sappey. The contest lay between M. Davaine and Paul Bert, the latter being elected on April 3 by thirty votes to twenty for Davaine.

MEETING OF THE ASSOCIATION OF MEDICAL SUPERINTENDENTS OF AMERICAN INSTITUTIONS FOR THE INSANE.—The thirty-sixth annual meeting will be held at the Grand Hotel in Cincinnati, Ohio, on Tuesday, May 30, 1882.

THE FIRST CONGRESS OF GERMAN PHYSICIANS AND HOSPITAL DIRECTORS will be held at Wiesbaden on the 20th, 21st and 22d of April. On the first day Dr. Leyden, of Berlin, will open the discussion on the pathology of Bright's disease, and on the second Dr. Liebermeister on the antipyretic methods of treatment. The congress will be opened by Prof. Frerichs.

THE PHILADELPHIA COUNTY MEDICAL SOCIETY AND THE NEW YORK CODE.—At the stated meeting of the Philadelphia County Medical Society, held April 19, 1882, the following resolutions were adopted:

Resolved, That this Society reaffirm its adherence to the principles of the Code of Ethics of the American Medical Association, and declares that, in its opinion, for a physician to extend professional recognition to irregular practitioners, is to patronize and encourage irregular practice. and is alike inconsistent with honesty of purpose and the pursuit of medicine as a science.

Resolved, That this resolution be referred to the Pennsylvania State Medical Society at its next annual meeting.

THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA AND THE NEW YORK CODE.—At the late meeting of the Alabama Medical Association the following resolutions were adopted:

Resolved, (1) That the Medical Association of the State of Alabama learns with regret the recent action of the Medical Society of the State of New York in the adoption of a Code of Ethics which authorizes, on the part of its members, consultations with irregular practitioners of medicine.

(2) That this Association, believing that such consultations cannot prove otherwise than mischievous to the best interests of the regular profession of medicine, and demoralizing to all regular physicians who countenance them, hereby renews its allegiance to the ancient practices of the profession, and to the established Code of Medical Ethics in this country, by both of which all professional association, of whatever sort, with irregulars is condemned.

THE ST. LOUIS MEDICAL SOCIETY AND THE NEW YORK CODE.—At a meeting of the St. Louis Medical Society, held April 1, 1882, the following resolutions were adopted:

Resolved, That the St. Louis Medical Society, while it desires to accord the broadest freedom to medical investigations and recognizes fully the right of individuals to form and hold private opinions, hereby declares that it regards with disfavor any steps taken to lessen or obliterate the distinctions and safeguards between an honorable practice of medicine founded upon science and that founded upon any of the current delusions and exclusive medical systems of the day.

Resolved, That a copy of this resolution be forwarded by the Corresponding Secretary to the New York State Medical Society, to the Permanent Secretary of the American Medical Association and to several specified medical journals.

THE HOMŒOPATHIC SOCIETY AND THE NEW YORK CODE.—At the regular stated meeting of the Homœopathic Medical Society of Lancaster Co., Pa., held last week, the following resolution was unanimously adopted:

Resolved, That it is the sense of this meeting that since the practice of homœopathy has established for itself an honorable position in the estimation of the community against all the opposing forces that the old school could bring to bear against it, that there is no advantage or prestige to be derived by homœopathic physicians in consulting with allopaths, and therefore the recent action of the Allopathic Medical Society of the State of New York—in resolving in future to consult with them—was entirely gratuitous.

An Unnoticed Feature of the New Code.—*The Chicago Medical Journal and Examiner* points out a very important clause in the New York Code, which, strangely enough, has hitherto escaped the notice of the many wondering eyes which have perused that now famous document. *The Chicago Journal* points out that "the third deviation from the National Code is embraced in the following paragraph: 'In case of acute, dangerous, or obscure illness, the consulting physician should continue his visits at such intervals as may be deemed necessary by the patient or his friends, by *him*, or by the attending physician.' Here is a latitude given for the continued attendance of a consulting physician after having once been called, which should certainly satisfy the most aggressive consultant in New York, or elsewhere.

"He is not to be guided in the repetition of his visits by the request of the attending physician, as has been hitherto deemed honorable and just; nor yet by the request of the patient or his friends; but he is to go as often as his own judgment, ambition, or avarice may dictate. It would be difficult to construct a rule more unjust to the attending physician, more open to the grossest abuses, or better calculated to deter the attending physician from suggesting council in the first instance."

Verily their Committee builded better than the Society knew.

What is said of the New York Code of Ethics.

We are enjoying the proud distinction of being the only journal that has assumed the responsibility of being outspoken on this question. We are consequently more than ever emboldened to say that, despite the adverse comments of medical journals, despite the denunciatory resolutions of State societies, despite the anathemas of medical orators, the Medical Society of the State of New York is perfectly right in the stand it has taken, and that it must not back down in any particular.—*The Medical Record*, April 22, 1882.

Most unwise, ill-timed, and injurious both to the interests of the profession and of the community. . . . . Untenable in every aspect in which it can be viewed, and is not sustained by the action of any other respectable body of medical men in Europe or America.—*The Chicago Medical Journal and Examiner.*

Practically, it gathers all medical adventurers and medical pretenders into its arms, and calls this liberality.—*The Detroit Lancet.*

From the profession of almost every State and section, as reflected by the medical journals, come the earnest protests against the attempted innovation of the New York State Medical Society upon the code of ethics. Some of the comments are extremely vigorous and some even caustic. The unanimity of opinion, however, is remarkable. . . . . It gives us renewed faith in the honor and integrity of the profession.—*Atlanta Medical Register.*

Yesterday homœopathy was a delusion. It was a gigantic fraud—in short, a lie. All the big noodles of the allopathic school swore by the big horn spoon, and all the little noodles repeated the oath, that the system called homœopathy was a monstrous lie. . . . To-day has come, bringing with it a remarkable change. Homœopathy is no longer a lie. . . . To-day homœopathy in the main is true enough, and there is no objection to any one practising it if they see fit.—*The Medical Advance* (Homœopathic).

Death of the Subject of the first Porro-Cæsarean Operation in Europe.—Giulia Cavallini, upon whom Prof. Porro, of Pavia, performed the initial operation which bears his name, on May 21, 1876, died of typhoid fever after nine days' sickness at Gambolo, on September 25, 1881. Although but a few miles distant, no word was sent of her sickness to Prof. Porro; and he was not aware of her death until too late to secure an autopsy, which would have been of great interest to the medical profession throughout the world. Giulia was thirty years old at the time of her death: she was a comely little woman of four feet ten and one-quarter inches in height; and her pelvis which was deformed by rickets was computed to have a conjugate of one nine-sixteenth inches. The favorable result in her case was largely due to the fact that she was less than seven hours in labor, and had been in hospital prior to its commencement, where steps had been taken in anticipation of the event.

The Society of the White Cross.—A society has been formed in Austria, called the Society of the White Cross, to aid in the labors of the Red Cross Society by providing and superintending convalescent homes in healthy places for invalided and wounded soldiers.

OBITUARY.

Died, on April 20, Charles Robert Darwin, LL.D., F.R.S., the celebrated English scientist and philosopher.

Mr. Darwin was one of the most distinguished students and scholars of the day, and his name is probably more widely known, and his opinions more generally studied, than those of any other English-speaking scholar. He was born at Shrewsbury, England, February 12, 1809, his father being Dr. Robert Waring Darwin, F.R.S., and his grandfather the celebrated Dr. Erasmus Darwin, F.R.S., the author of "Zoönomia," the "Botanic Garden," "Temple of Nature," etc.

Mr. Charles Darwin was educated first at the Shrewsbury Grammar School, then at the University of Edinburg in 1825 and 1826, and next at Christ College, Cambridge, where he received the degree of B. A. in 1832, and M.A. in 1837. His reputation as a naturalist was first obtained by his report on the scientific expedition of the "Adventure" and "Beagle," in 1826–30, and again in 1831–36. In addition to numerous papers on scientific subjects, Mr. Darwin wrote "The Structure and Distribution of Coral Reefs," which passed through two editions, "Geological Observations on Volcanic Islands," and "Geological Observations on South America."

The most important of all his writings is his "Origin of Species by Means of Natural Selection," published in 1859, in which the outline of the now famous doctrine of evolution, or as it is familiarly termed, "Darwinism," was established. It is only recently that the controversy awakened by his bold and ingenious arguments has ceased, while their effects on the whole line of scientific thought is unparalleled. His "Origin of Species" has passed through several editions in England, and been translated into French, German, Spanish, Italian, and other European languages.

Mr. Darwin's more recent works had for their object the supplying of data on which he founded his conclusions. A "Treatise on the Fertilization of Orchids," was published in 1862, and was followed in 1867 by "Domesticated Animals and Cultivated Plants, or the Principles of Inheritance," etc. In 1871, he published his "Descent of Man and Selection in Relation to Sex;" in 1872, "The Expression of the Emotions in Man and Animals," "Movements and Habits of Climbing Plants," second edition, 1875; "Insectivorous Plants," 1875; "Cross- and Self-fertilization in the Vegetable Kingdom," 1876; and "Different Forms of Flowers, in Plants of the Same Species," 1877. Mr. Darwin, who had been elected a member of various English

and other scientific bodies, had received from the Royal Society the Royal and Copley Medals for his various scientific works, and from the London Geological Society the Wollaston Palladin medal. He was created a Knight of the Order *Pour le Mèrite*, by the Prussian Government, and in June 1871, he was elected a corresponding member of the Academy of Vienna. The University of Leyden conferred upon him the honorary degree of M.D. in February, 1875, and the University of Cambridge gave him the honorary degree of LL.D., November 17, 1877. He was elected a corresponding member of the French Academy of Sciences in August, 1878.

—— On January 31st, at Mt. Pleasant, Iowa, Dr. MARK RANNEY, Superintendent of the Iowa Hospital for the Insane, in the 56th year of his age.

—— At his residence in New Orleans, on March 20, BENJAMIN STILLÉ, M.D., formerly of Philadelphia, in the 68th year of his age.

NOTES AND QUERIES.

PRACTICAL NOTES.

To the Editor of THE MEDICAL NEWS.

Sir: You will oblige me very much if you will answer me the following questions in the next issue of your paper:

In the treatment of syphilis by hypodermic injections of albuminate of mercury, as mentioned in your paper of to-day, how many times a week ought the injections to be made?

A patient with the opium habit, takes from two to two and one-half grains of morphia, hypodermically, per day. Is it safe for him to leave the habit off all at once, and what symptoms would follow in that case?

Will solutions of muriate of apomorphia or muriate of pilocarpina keep for any length of time?

Which American work, or foreign work adapted to American practice, is the best authority on skin diseases?

In answering these questions you will very much oblige,

Yours, truly, A SUBSCRIBER.

CINCINNATI, April 18.

[1. The mercurial injections are given daily, on alternate days, and twice a week, according to case. 2. The habit can be discontinued at once, but great depression, almost callapse, ensues. 3. Both undergo change rapidly, and should be made when required. 4. Duhring, American, and Fox, English.—ED.]

HYPODERMIC INJECTIONS FOR CURE OF SCROFULOUS CERVICAL GLAND.

Subscriber asks: What is the latest experience in using hypodermic injections for the radical cure of scrofulous glands in the neck? What injection is the best? What percentage of cases has been benefited?

Billroth and Czerny both report cures of lymphadenoma by injections of Fowler's solution into enlarged glands—from five to twenty drops daily. The usual material for strumous glands is the tincture of iodine. Cures are certainly constantly effected, but we do not know of any exact statistics bearing on the question of the relative number.

VACCINE CONES.

To the Editor of THE MEDICAL NEWS.

Sir: Seeing our name mentioned in special article "On Vaccine" in the issue of THE MEDICAL NEWS of April 22, 1882, and as it does not justly state the facts as far as we are concerned, we respectfully request that you will permit us to explain.

1. The article alludes only to the cones made by the N. E. V. Co., creating the impression (with those not familiar with their virus) that they make it in no other form. This is an error, as they make and sell more on ivory points than any other way, and these are considered the purest form of vaccine, and are equal to the best that can be produced, and better than most in the market, as is proven by the great satisfaction they have given the medical profession. We have sold nearly 100,000 ourselves during the past winter.

2. The cones have never been spoken of by ourselves, nor do the N. E. Vaccine Co. recommend them as equal to points, but have always represented them as a *pure* form of crust, and are preferred by many practitioners to the points. We have sold hundreds of these cones during the past winter, and the many unsolicited letters of recommendation received by us of their reliability and efficiency, assure us they *are not* spurious mixtures, as some interested parties have represented them to be.

We have visited, from time to time, the establishments of the N. E. Vaccine Co., to keep ourselves fully acquainted with their mode of propagating and collecting virus, and are satisfied no more skill or care can be exercised than they use.

Respectfully, H. C. BLAIR'S SONS.

PHILADELPHIA, April 24.

[The statements made in the article referred to, so far as Messrs. Henry C. Blair's Sons are concerned, were simply that they are the agents of the "New England Vaccine Company," and that they sold us the cone which we examined, neither of which they deny; so that their grievance is not evident.

The specific matters upon which their letter dwells relate to the "N. E. V. Co." and not to them. In reply to these, however, it is proper to say that:

1. We did not imply that the "N. E. V. Co." does not deal in points, on the contrary we distinctly said that it is stated that Dr. Cutler manages to charge three or four times more *points* from a single heifer than any other propagator.

2. The cones are advertised as "consolidated lymph . . . . entirely free from any trace of pus, débris, or epidermis," which does not correspond with the characteristics of a "crust."

The letters of recommendation which were shown to us by Mr. Blair, were in response to their own notes of inquiry, and most of them spoke of the points and not of the cones. Mr. Blair can scarcely expect the public to accept as unbiassed his opinion of the management of a business of which he is a commercial agent, particularly in the face of the impressions given by a peremptory refusal to permit an inspection of the company's premises by a competent and properly accredited physician.—ED.]

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM APRIL 18 TO APRIL 24, 1882.

GREENLEAF, CHAS. B., *Major and Surgeon.*—In accordance with par. 12, S. O. 78, C. S., from Headquarters of the Army, relieved from duty in this department.—*S. O. 57, Department of Dakota, April 11, 1882.*

GARDNER, W. H., *Captain and Assistant Surgeon.*—His assignment to duty at Fort McKavett, to relieve Surgeon Waters, revoked, and to report to the commanding officer Fort Davies, Texas, for duty as Post Surgeon.—*S. O. 38, Department of Texas, April 14, 1882.*

LAUDERDALE, J. V., *Captain and Assistant Surgeon.*—Par. 1, S. O. 47, C. S., from these headquarters, in regard to him, revoked, and he will proceed to Fort Sully, Dakota Territory, and report to the commanding officer of that post for duty.—*S. O. 59, Department of Dakota, April 13, 1882.*

BROWN, P. R., *Captain and Assistant Surgeon.*—To be relieved from duty in Department of Texas, on receipt of this order, to proceed to New York City, and, on arrival, report by letter to the Surgeon-General.—*S. O. 88, A. G. O., April 17, 1882.*

FINLEY, J. A., *Captain and Assistant Surgeon.*—Relieved from duty at Fort Concho, Texas, and assigned to duty as Post Surgeon at Fort McKavett, Texas, relieving Surgeon Waters.—*S. O. 38, C. S., Department of Texas.*

KILBOURNE, H. S., *Captain and Assistant Surgeon.*—Having reported in person at these headquarters, will proceed to Fort Shaw, Montana Territory, and report to the commanding officer of that post for duty.—*S. O. 60, Department of Dakota, April 14, 1882.*

SHUFELDT, R. W., *Captain and Assistant Surgeon.*—Granted leave of absence for three months from May 1, 1882, and relieved from duty in Surgeon-General's Office from May 1, 1882, and, upon expiration of leave, to report by letter to Surgeon-General.—*S. O. 92, A. G. O., April 21, 1882.*

DAVIS, WM. B., *Captain and Assistant Surgeon.*—So much of par. 12, S. O. 78, April 5, 1882, from A. G. O., as directs him to report for duty to the commanding general Department of the Platte, is amended as to direct him to report in person for duty to the commanding general Department of Dakota.—*S. O. 87, A. G. O., April 15, 1882.*

THE MEDICAL NEWS will be pleased to receive early intelligence of local events of general medical interest, or which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS should be addressed to No. 1004 Walnut Street, Philadelphia.